

*Philosophy and Principles of*  
**PHYSICAL EDUCATION**

*Philosophy and Principles of*  
**PHYSICAL EDUCATION**

MLSU - CENTRAL LIBRARY



24732EX

**PHILOSOPHY AND PRINCIPLES OF PHYSICAL EDUCATION**  
*Charles C. Cowell and Wellman L. France*

PRENTICE-HALL INTERNATIONAL, INC., London  
PRENTICE-HALL OF AUSTRALIA, PTY., LTD., Sydney  
PRENTICE-HALL OF CANADA, LTD., Toronto  
PRENTICE-HALL FRANCE, S.A.R.L., Paris  
PRENTICE-HALL OF JAPAN, INC., Tokyo  
PRENTICE-HALL DE MEXICO, S.A., Mexico City

© 1963 by Prentice-Hall, Inc., Englewood Cliffs, N.J.

All rights reserved. No part of this book may be reproduced in any form, by mimeograph or any other means, without permission in writing from the publishers.

*Library of Congress Catalog Card No.: 63-13286*

*Printed in the United States of America*

C

*To Jodie, Carole, and Bud*

## PREFACE

A title such as *Philosophy and Principles of Physical Education* appears ambitious, yet in considering this field of study we must forget neither our biological heritage nor past occurrences that have bearing on the present. Philosophy is related to history for it takes its facts from history as well as from science and even from tradition and common sense. Philosophy inquires into the meaning of facts by searching for principles and inferences which determine our thinking and action. We solve problems in education by reasoning, using data from both science and philosophy. Science may tell us what may result when certain physical education aims are actually held in a given school system. Philosophy alone is appropriate for determining what the aims and values *ought* to be. Principles, as fundamental truths which guide us to action, as judgments derived from facts, as relationships between facts are concepts which derive from either science or philosophy. Principles and policies tell us how to *act* in physical education. Principles are more enduring than policies. The soundness of our principles will determine the soundness of our programs of physical education. "Science gives us knowledge, but only philosophy can give us wisdom."<sup>1</sup> Science provides the tools. Philosophy tells us how to use these tools.

This book deals with historical, philosophical, and scientific foundations of physical education, which draws its principles, theories, and laws from many disciplines among which are human biology, physiology, individual and social psychology, cultural anthropology, sociology, and psychiatry. The book treats physical education as a disciplined field with its own rationale or reasons for existence. It treats physical education not as a science or as a subject but as a discipline, a field of study which grew out of interactions of a number of the sciences. Like the humanities—language, history, philosophy, or literature—physical education also qualifies as a humanity because it deals with human material, self-discovery, human thought, human values, and human relations. Considering it as a "non-verbal humanity," the

<sup>1</sup> Reprinted from *The Story of Philosophy*, by Will Durant, by permission of Simon and Schuster, Publishers.

authors seek incentives from the sciences for exactness in their conclusions.

Since physical education contains some of the attributes of science, some of the attributes of the humanities, and many of the attributes of education when engaged in the systematic study of the problems, methods, and theories of teaching and learning, the authors conclude that its subject matter is the *study and education of man in and by means of physical activity*.

As an applied social and biological science it presupposes the application of information which is fairly well established by the methods of the pure sciences. Basic principles are isolated and their applications illustrated. Situations are described and the reader is asked to recognize and identify the nature of the principle or principles operating therein. Search is made not only for the truth but also for its implications which can be tested by further observations.

In the production of this volume the authors are indebted to their colleagues and students and to those who have generously given permission to quote from their writings in support of the ideas expressed herein.

Finally, gratitude is expressed to Mrs. Marguerite Carpenter and Mrs. Phyllis May whose assistance contributed much to the completion of this book.

C. C. C.  
W. L. F.

# CONTENTS

## 1. PHYSICAL EDUCATION AS PHILOSOPHY

1

- The Need for a Philosophy of Physical Education / 2
- Physical Education and the Traditional Schools of Philosophy / 3
  - Physical Education as Idealism* / 5
  - Physical Education as Naturalism* / 9
  - Physical Education as Pragmatism* / 17
- The Meaning of Principles and Values / 21
- Physical Education and Social Philosophy / 24
- Physical Education and Philosophy of Education / 27
- Some Definitions of Physical Education / 31
- Summary / 32
- Thought Provokers / 33
- Orientation Reading / 36

## 2. PHYSICAL EDUCATION AS SCIENCE

37

- The Sources of Scientific Principles / 38
  - Human Biology* / 39
  - Physiology* / 39
  - Mental Hygiene* / 40
  - Psychology of Learning* / 42
  - Social Psychology* / 43
  - Cultural Anthropology* / 45
- Philosophy and Science Are Complementary / 47
- Summary / 49
- Thought Provokers / 50
- Orientation Reading / 51

<b>3. PHYSICAL EDUCATION AS ART</b>	<b>53</b>
Philosophy Applied: The Practice of Physical Education /	54
Emotional Responsiveness: Teaching for Appreciation /	57
Summary /	61
Thought Provokers /	62
Orientation Reading /	64
<b>4. PHYSICAL EDUCATION IN A CHANGING CULTURE</b>	<b>65</b>
The Nature of American Culture /	66
We Live in a Changing Culture: Life Has a New Environment /	69
We Live in a Changing Economy /	73
Intercultural Education Through Physical Education /	76
Summary /	78
Thought Provokers /	79
Orientation Reading /	81
<b>5. PHYSICAL EDUCATION: ITS NATURE AND FUNCTION IN A DEMOCRACY</b>	<b>83</b>
The Biological Function of Physical Education /	86
The Social Function of Physical Education /	89
The Integrative Function of Physical Education /	92
Summary /	95
Thought Provokers /	96
Orientation Reading /	98
<b>6. THE NATURE AND NEEDS OF HUMAN BEINGS</b>	<b>100</b>
The Integrity of the Organism /	101
Basic Personality Needs and the Conditions for Their Satisfaction /	102
Physical and Mental Health /	105
The Place of Play in Human Growth and Development /	109
<i>Growth and Development</i> /	109
<i>Play</i> /	111
The Importance of Skill Learning /	114
The Physical Education of the Exceptional /	118
Summary /	120
Thought Provokers /	121
Orientation Reading /	124
<b>7. PHYSICAL EDUCATION AND THE LEARNING PROCESS</b>	<b>126</b>
The Nature and Criteria of Learning /	126
The Conditions of Learning /	128



The Various Types of Learning Outcomes / 130

Summary / 131

Thought Provokers / 132

Orientation Reading / 134

**8. PRINCIPLES OF LEARNING APPLIED. METHOD:  
THE ORGANIZATION OF LEARNING EXPERIENCES 135**

Principles Applied / 136

Individual Activities / 138

Team Activities / 140

Summary / 142

Thought Provokers / 143

Orientation Reading / 143

**9. THE CURRICULUM: PUTTING PHILOSOPHY INTO  
ACTION 145**

Principles of Human Development Applied to  
Curriculum Planning / 147

The Components of Good Curriculum Design / 156

Summary / 159

Thought Provokers / 160

Orientation Reading / 161

**10. ADMINISTRATION: DIRECTING EFFORTS TOWARD  
ACCOMPLISHING OUR EDUCATIONAL PURPOSES 162**

The Components of Administration / 164

Planning / 164

Organizing / 165

Directing / 168

Coordinating / 168

Evaluation / 170

Summary / 172

Thought Provokers / 173

Orientation Reading / 174

**11. EVALUATION: APPRAISING AND RECORDING  
STUDENT PROGRESS 176**

The Use of Tests and Other Devices / 178

The Relation of Physical Education to Guidance / 181

Records of Developmental Growth / 183

Summary / 186

Thought Provokers / 187

Orientation Reading / 188

12. PHYSICAL EDUCATION IN RETROSPECT: HISTORICAL ORIGINS AND CONCEPTS	190
The Greeks / 192	
The Romans / 197	
The Germans / 200	
The Scandinavians / 203	
The English / 205	
The Evolution of an American System: Our Heritage from the Past / 207	
Summary / 215	
Orientation Reading / 216	
13. PHYSICAL EDUCATION IN PROSPECT: A LOOK AHEAD	218
<i>The Continued Struggle for Time and Space</i> / 219	
<i>Shall We Learn from Lessons of the Past?</i> / 221	
Education or Chaos / 223	
What Is Ahead? / 225	
Orientation Reading / 229	
INDEX	231

*Philosophy and Principles of*  
**PHYSICAL EDUCATION**

# 1

## PHYSICAL EDUCATION AS PHILOSOPHY

Science merely gives us the tools. It is the rest of education which teaches us how to use these tools.

JAMES BRYANT CONANT

PHILOSOPHY REPRESENTS THE ULTIMATE INFERENCES AND PRINCIPLES THAT determine our thinking and action. The value system which we evolve and personally cherish becomes the means by which we interpret events and control our actions. The most important thing about any person is his philosophy. Whether or not he has ever heard the word "philosophy," one's philosophy sets the scale and shapes the pattern of his thinking and living. It is a series of value assumptions which become a source of direction and a guiding light in decision-making when alternatives present a dilemma.

The answer to every educational question is ultimately influenced by our philosophy of life. Every system of education must have an aim. Each teacher has a pattern of meaning and values which controls his choice of educational objectives, his way of organizing learning experiences, and his beliefs as to what is good, better, or best.

While philosophy formulates ends, education offers suggestions as to how these ends may be achieved. The function of the curriculum is to translate educational philosophy into learning experiences and teaching procedures. The most powerful elements in determining what goes on in a physical education program are the values—those conditions of life and learning which the teacher cherishes and deems important.

Amid the swirling forces of change, including tremendous developments in science and technology, academic education seethes in considerable turmoil. Yet, the physical education teacher is on fairly solid ground. He knows that the biological and basic personality needs of man are universal and have changed little over the centuries. The needs for activity, play, physical vigor, belonging, and the siphoning off of tensions in a wholesome way have always been present—even before integral calculus came into being.

Our business is *education*. As teachers we are neither in the entertainment business, nor engaged in enhancing our personal prestige and reputation at the expense of the students. We are "development supervisors," guardians and developers of human personality. We should constantly test the soundness of our philosophy, by reexamining the validity of our beliefs, opinions, concepts, ideas, impressions, and values in terms of the scientific bases for what we do as physical education teachers and coaches. The quality of physical education is determined by the kind and quality of educational experiences offered and we, as teachers, can aid in determining these. Educational philosophy is concerned with self-criticism, the criticism of one's own experience when it asks "what is true?" "what is right?" "what is adequate?" "what are the purposes and values of these activities?" Whenever we examine critically our educational theories, hypotheses, and generalizations in the light of data already available, we are educational philosophers.

Since philosophy is the only source of direction from which practice springs, this volume aims to help its readers think through their respective philosophies and internalize them with the hope that more intelligent and effective educational practice results.

## THE NEED FOR A PHILOSOPHY OF PHYSICAL EDUCATION

Philosophy speaks in terms of aims, science in terms of results. Philosophy helps us to decide what we want to happen to people on the playing fields, in the gymnasium or pool. Science shows us how to make it happen. The "what" and "why" precede the "how." A theory of values is most important. Without a consideration of values, we have no answer to the question, "what is educationally desirable?" The answer to this question is basic to every educational policy, including physical education policies, athletic policies, safety, and health education policies. The impatient teacher, however, seeks some cut-and-dried conception of "how to do it," despite the fact that administering and teaching a program of physical education is a continuous problem-solving enterprise requiring a system of reflective educational thinking

and based on some valid understanding of what physical education is. When assumptions are made, the careful student inquires into the grounds which may reasonably be said to support them.

Many physical education curricula lack direction, unity, and balance. The central purposes of programs are not clear. Guiding principles, if present, are not consistent. A society, a school, a department of physical education will "hang together" to the extent that there is common agreement (policy) as to what things are important—valuable. Part of our job as teachers is to give some leadership in determining what should be taught in order to give some selective control and direction to the growth and development of children and youth. The questions arise: "What should the content of physical education be?" and "What criteria of choice are most important?"

To idealize in terms of *standards* is not difficult. The sudden appearance of numerous fitness standards attests to this fact. Only as each school and physical education department conceives of itself as a force in molding human welfare and personality and develops an underlying philosophy cherishing certain values will changes in educational method, time allotment, space, equipment and the like come about. More important than standards are the *values* affected by them. When one seeks certain values, standards begin to appear, for standards are established rules or models which grow from taking a look at the values desired. Each school sets its own standards in terms of the values it seeks. To prevent groping in the dark, an effort will be made in this volume to give meaning to values by stating, defining and explaining them positively in the form of determining and coordinating principles to aid in making physical education more scientifically oriented. Oberteuffer stated it well in saying that "No program can be recognized as good until the principles upon which it is based are known. Practice without principle is a headless horseman!"<sup>1</sup>

### PHYSICAL EDUCATION AND THE TRADITIONAL SCHOOLS OF PHILOSOPHY

For thousands of years, teaching among humans was a part-time indirect activity without teaching "specialists." In time the human race developed its productivity to a point where there was leisure time for cultural activities. Teachers appeared on the scene and gradually began to systematize their work through various arrangements, and schools came into existence. While we use the word *school* to identify a building, it is the *system of teaching* that is the school, philosophi-

<sup>1</sup> Delbert Oberteuffer, *Physical Education* (New York: Harper & Row, Publishers, 1956), p. 452.

cally speaking. In this sense we refer to a group of people held together by the same teachings, beliefs, opinions, and methods—followers or disciples of a teacher, leader, or creed—in such terms as “gentlemen of the old school,” or the French impressionistic *school* of painters, or the naturalistic *school* of novelists.

Society is composed of people. How they behave, what they value, the things they make, the games they play, the songs they sing—their *organized life and behavior* is their culture.

Individual habits become approved group ways. These become systematized into patterns and institutionalized. Thus the family as the primary institution or social group came into being. An institution, then, is a unit of social organization consisting of a body of values which tell the individual how he must satisfy his various needs. When we speak of the system of behavior patterns characteristic of Americans as a group we speak of American *folkways*. When the system is regarded as a regulator of conduct we speak of American *mores*. We may then speak of physical education and athletics as secondary *institutions*, the organization and administration of them as *folkways*, and the standards or ethics by which we conduct them as *mores*.

This is a rather round-about way of coming to the brief consideration of traditional schools of philosophy, but group ways become synthesized to form institutions and the goal of these come to be what sociologists refer to as the *social order*. Since philosophy is the basis for development of any given social order (communism, democracy, socialism, etc.), education becomes the method of perpetuating it.

American education today is undergoing strains and stresses. The rise of new issues and of old issues in new form create considerable turbulence in social trends and forces, often resulting in sweeping changes. Considerable soul-searching and philosophizing is going on as a result.

It is our purpose in this brief survey of the tenets of three of the traditional schools of philosophy to determine some of the past changing goals and purposes of education growing out of idealism, naturalism, and pragmatism as they have implications for physical education. It is from these variations of thought that our educational philosophy of today has come.

What is the meaning of physical education? The answer to this question is the function of a philosophy of physical education. The answers must give unity to the truths from many different *schools* of thought. This philosophy is perforce *eclectic* which simply means selective. It will be a composite system of thought made up of views borrowed from various other systems which seem to afford a sound practical theory. We do this by selecting from all sources those ele-

ments which are sound in logic, and have proved most useful in education programs. Today, most educational thinkers have chosen their doctrines from many sources. The eclectic is the only method left open for a philosophy of physical education. The function of physical educators as philosophers resolves itself into that of critical selection if they are to approach a complete philosophy of physical education. Our thinking today has rightfully been influenced by all the thinking that has gone on before us. The soundness of our philosophy will be determined by the validity of the principles we select and incorporate into our composite system. We must find unity in diversity, for we seek social and psychological as well as biological values.

While it can be said that, perhaps, nowhere can educational philosophy be found which wholly exemplifies idealism, naturalism, or pragmatism, a brief and rather superficial examination will be made of all three. The reader is asked to consider the practical implications of these beliefs in physical education theory and practice.

### PHYSICAL EDUCATION AS IDEALISM

Idealism, popularly, means faith in the moral quality of the universe or an attitude of mind which is prone to represent things in the light of abstract perfection. Idealism, philosophically, implies that man can know the world only through the senses—by perception. It is known only through the ideas of the knower. Thought and purpose take a more central place. It has been said that idealism may better be called the philosophy of *idea-ism*. The essential idea in classical idealism is that the universe has spiritual purpose. Socrates (468-399 B.C.) taught that life could be explained only as a system of ends and that goodness consists of what the knowledge of these are. Knowledge, he urged, was the real guide to right conduct and virtue. He taught the importance of "intelligent ignorance." By his method of asking his students soul-searching questions, he brought them to the place where they could see their own ignorance and thus acquire the attitude of the learner. He believed in the absolute reality and necessity of virtue, that knowledge is the path to virtue and is the first essential to both wisdom and virtue. The function of the educator was to develop the power of right thinking. It is assumed that by knowledge Socrates meant *wisdom*—the power to judge rightly and interpret—rather than our conventional use of the term. Virtue was a synonym for happiness. To him, the object of education is to produce a person who will find his happiness in the exercise of moral and intellectual purposes, who will not overestimate material and physical goods. Great distinction is made between pleasure and happiness. Even the ideal of today's good



liberal education portrays this characteristic feature of idealistic education—that education is worthwhile for its own sake. It contrasts education for a life worth living with education for “making a living.” Education thus makes living itself an art. To Socrates the existence of God was the supreme reality. By his rational idealism he felt that as a teacher his mission was a duty to search for truth and to lead men to the virtuous life.

An essentially religious nature is evident in early Greek sports. The origin and training for athletic contests are credited to the various ancient gods and demigods. Athletic festivals were first held in religious veneration of the dead. Success in sport was a token of success in life. Greeks extolled the virtues of youth, vigor, and beauty. Gymnastics, music and rhythm played important roles in aesthetic and moral training.

Plato (422–347 B.C.) as an idealist insisted that reality exists only in ideas. His idea was that God, being good, wishes everything to resemble Himself. While Socrates sought to change men, Plato sought to change the world. In language of today we would, perhaps, think of Socrates as the individual psychologist or mental hygienist and Plato as the social psychologist and political scientist.

Aristotle (384–322 B.C.), a pupil of Plato, was likewise devoted to reason as man's highest function. While his teacher stressed contemplation and thought, Aristotle laid stress on observation and reason, thus laying the foundations of the scientific method. He was sensitive to individual differences and, therefore, to education suited to the needs of people at different levels of maturity. He was a great teacher of morals. “If virtue depends on us,” he said, “so does vice; whenever it is in our sole power to do a thing, it must also be in our power not to do so; whenever we can say ‘No,’ we may also say ‘Yes.’”

Since idealism permeates the entire history of philosophy in some form or other, rigid classification of people into various philosophical schools or “camps” is not fully agreed upon. Rousseau, Kant, Fichte, Froebel, Comenius, and Hegel were idealists to greater or lesser degree, while Gentile and Horne might definitely be called modern idealists. All idealists agree that man, not having an infallible instinct to guide him naturally and without error, must achieve his ends by restless activity of mind. Man is a reflective animal, and it is through education that he actualizes his spiritual nature which is universal. “Truth does not change, though man's ideas of it may and do change.”<sup>2</sup>

To further identify and clarify the principles of Idealism applied to education, the authors offer the following:

<sup>2</sup> Herman H. Horne, *The Philosophy of Education* (New York: The Macmillan Company, 1927), pp. 302–303.

## IDEALISM

1. *Philosophical Viewpoints and Educational Objectives*

- (a) Mind and spirit are real forces in the universe.
- (b) Values are part and parcel of reality.
- (c) The individual realizes selfhood only in society. Brotherhood is the social objective of education.
- (d) The older generation should give the new the benefit of past experience. Tradition is important if it has stood the test of time. Cultural heritage is important.
- (e) Book learning and the development of an intellectual elite are important in stressing culture, knowledge, and development.
- (f) Education is worthwhile for its own sake as it brings the student to seek truth, beauty, and goodness.
- (g) The ideal character of man and of society are ultimate objectives of education.
- (h) All good education is character education.

2. *Curriculum Content*

- (a) The curriculum experiences should stress the three "racial aspects of achievement," intellect, emotion, and will.
- (b) Experiences, activities, life situations and studies should be selected which contribute to the development of the ideal character of man and an ideal society.
- (c) The best ideas in all the conventional branches of liberal and vocational education should be presented so that they become ideals.
- (d) Individual growth and character come through freedom of the will and through self-activity and the ultimate responsibility should rest with the will of the student.
- (e) We should learn from the past by scrutinizing carefully our cultural heritage of the finest in literature, music, art, and ethics so that children will be exposed to what is "noble, generous, and faith-provoking."

3. *The Organization of Learning Experiences: Method*

- (a) Cultivate the student's judgment by thought-provoking questions and by setting up situations which demand decision and choice on his part.
- (b) Develop student's potential by environmental surroundings and influences which raise problems that are resolved by the student's own decision and active effort.
- (c) Intellectual culture, art, morality, and religion should provide the only satisfactory philosophical bases of education.

- (d) Students should learn that "ideas are not true because they work. They work, if they work at all, because they are true."
- (e) Interest permeates all school activity. Child-centered procedures consider individual differences in child's nature and maturity level.
- (f) Idealism is eclectic in methodology of education but not in philosophy.

#### 4. *The Pupil and the Teacher*

- (a) The teacher prepares the young for many critical experiences before they actually occur. He conceives objectives.
- (b) The pupil is considered a "self," a spiritual being.
- (c) The body is considered "the home of the mind."
- (d) The individuality and uniqueness of pupils is considered a supreme value.
- (e) The teacher sees the pupil in the "process of becoming" and of aiding him in actualizing the potential present at birth.
- (f) The teacher is a worthy model to be imitated, creates the learning environment and atmosphere and structures the learning situation.
- (g) As he sets up learning opportunities for the student, he encourages and seeks active response from the learner.

#### 5. *Evaluative Criteria*

- (a) The student is well-rounded, balanced, and well-grounded in the sciences, arts, and humanities.
- (b) The standards of judgment are those ideals established according to the best achievements and traditions of the past.
- (c) Superior selfhood with regard for truth, beauty, and goodness growing out of intellectual, aesthetic, and moral experiences which result in seeking the truth, transcends ugliness and conquers evil.

As physical educators, let us look at some of the facts, issues, and problems in American education which might be of concern to us as idealists:

1. By what criteria of truth shall we judge physical education programs? Is there just one standard or are there several?
2. By what standard can we validate our aims and values in physical education?
3. Do we develop greater force of moral character by having teachers set certain standards of learning and conduct for pupils or do learning activities derive their value solely from being liked by the students?

4. Just what does democratic regard for the individual mean?
5. If more external control is restored in physical education, how, at the same time, shall we build initiative, self-reliance, and moral autonomy in children and youth?
6. Idealism asks "Why has the mind a body?" Whereas naturalism asks "Why has the body a mind?" What is our reply as idealists?
7. Is there a religious dimension to physical education which we have neglected in our search for a value underlying all things?
8. What obligation do teachers of physical education have to persuade students to "take life seriously and to search strenuously for something worthy of their complete and absolute allegiance"?<sup>3</sup>
9. What good is a healthy body if the soul that animates it is diseased or corrupt and thus confuses good with evil? Is character building the cliché which many physical educators make of it, or is it an educational responsibility? If we are idealists, we search for psychological *values* in physical education. Are we in the entertainment business, the business of exploiting youth for our own personal gain, or in the profession of education? Martin reminds us that "the educated mind differs from the uneducated mind not in that it responds to a different set of situations, but that it responds with a different set of values."<sup>4</sup> Although they are somewhat intangible, values are efficient causes, forces and powers in our lives.

Because learning involves change, including a change in values, a philosophy of physical education is deeply committed to potentialities—in the *direction* of change.

### PHYSICAL EDUCATION AS NATURALISM

Naturalism is characteristic of modern rather than ancient thought, but today its concepts more closely approximate *Idealism*. Naturalism, however, considers man as a biological organism and as a product of organic evolution. It rejects the supernatural or mystic concept of life and regards nature as the criterion of values. Unlike many other Utopias, it does not leave out of account man's human nature or his fundamental animality. It would attempt to keep education, at each

<sup>3</sup> Theodore M. Green, "A Liberal Christian Idealist Philosophy of Education" in *Modern Philosophies of Education*. (Chicago: University of Chicago Press, 1955), p. 134.

<sup>4</sup> Everett Dean Martin, *The Meaning of a Liberal Education* (New York: Garden City Publishing Company, Inc., 1926), p. 161.

stage of the organism's development, in harmony with evolution. It does not substitute something else for principles, laws, and methods of nature; it works in harmony with them and aids nature in the attainment of her goal in the lives of individuals. Behavior has as its end the establishment of equilibrium, or satisfaction—success in adjustment. Since adjustment is the process by which organisms meet their needs, the physical educator as a naturalist must know what the needs of life are. What conditions do children normally lean toward to satisfy these needs, by what processes are these needs met, and what experiences on the playing fields, in the gymnasium, or in the pool are best suited to meet these needs?

The horticulturist will grow beautiful flowers, and the stockman will grow fine animals only in so far as he knows the *nature* of the organisms with which he deals and is able to assist them most effectively in meeting their needs. The human being is no exception to other living things in the fundamental laws of life. From the biological point of view, we must think of the child as a living whole, or organism. To aid children in reaching their optimum development, we must know their nature and supply the conditions under which their needs can best be met. Education is a dynamic process going on in response to inner needs and by means of self-activities. The human child is confronted with a complex, man-made, ever-changing environment. He has an action system which is imperfect at the start but which is in the process of maturing. This necessitates much trial and error before adjustments are satisfactory. Hence, planned education, by teachers with progression in mind, facilitates learning and makes it more rapid and effective.

The physical educator accepts the fact that the child comes into the world with "unlearned cores of behavior," tendencies to respond, which were once referred to as instincts. All normal children tend to be physically active, to be curious, to explore, to seek excitement and new experience, to become increasingly gregarious and eventually social, and to play. These forms of behavior are universal, and all educative efforts must start from such instinctive tendencies.

The earlier naturalists, like Rousseau (1712-1778), stressed discipline by natural consequences. They believed that moral training should be impersonal. It should result from allowing the child to suffer the natural consequences of his own action without feeling that human interference had anything to do with it. For example, if the child is slow in dressing for a walk, leave him at home; if he over-eats, let him be sick. In fact, let him suffer the natural results of violating any laws of nature or of his own being. Education is not preparation for life but is life itself.

A child's play and games fall into the above category, for they provide successes and failures, risks and thrills, victories and defeats. In games and sports, the child learns not only to control his body by more skilled and graceful movements but he also learns to control his emotions and becomes less clumsy in his social dealings with other children. The play of children affords the normal mechanism of release for imagination and the vehicle for physical and social development. Interest is inherent in the activities themselves without extraneous or interest-distorting motivations. Play is nature's means of education.

Rousseau and other naturalists gave us the germinal ideas of the kindergarten and of modern elementary education. From them we obtained the idea that education starts with the child, that its process is determined by child nature, and therefore, as teachers, our understanding of child growth and development is basic to good education. At a time when human happiness and human rights were special possessions of a favored class, Rousseau taught that these are the rights of every individual. Similar to his doctrines of liberation of the common man, great educational doctrines of the liberation of the child find their origins in Rousseau.

Other naturalists, sometimes classed as realists, contributed much to fundamental theory of education that should be the concern of physical educators. Comenius (1592-1671) might be called the grandfather of modern pedagogy as an independent science. He was the one who, for the first time, seriously presented a method of education in conformity with nature. He elaborated principles and he worked these out in greatest detail. A few of these are:

1. "Whatever is taught should have a definite use in everyday life."
2. "General principles should be taught first, then details."
3. "Things should be taught with reference to the manner in which they came into existence."
4. "All things stand in definite relation to each other."

He is mentioned here as a naturalist because of principles such as:

The seeds of learning, virtue, and piety are naturally implanted within us and as man has a natural craving for knowledge, he can only be formed by education. Education therefore must be universal and common, and the time for it is youth.

The exact order of instruction must be borrowed from nature and must be of such a blend that no obstacle can hinder it. Accord-

ingly, there must be principles of certainty, focality, and thoroughness.<sup>5</sup>

In a period when learning was most abstract, he showed the absolute necessity of the *active* methods in education and made learning-by-doing the fundamental principle.

Pestalozzi (1741-1827), accepting much of Rousseau's naturalism, stressed what has been called sense realism on the grounds that real knowledge came through observing things, acquiring an insight into the nature of things by examining with one's senses rather than being told about them. Sense perception—the interpretations of sensations from eyes, ears, nose, tongue, fingers, muscles, and joints—was to Pestalozzi the basis of all learning. "Words alone cannot give us a knowledge of things; they are useful only for giving expression to what we have in our minds."

Froebel (1782-1852), the creator of the kindergarten, has been called "the discoverer of childhood." In an era when children were considered little barbarians, disorderly and destructive—a notion which came out of the church's doctrine of original sin, Froebel championed the child. To him, the child was not depraved, but was a bundle of potentialities. He combatted the idea that children have to be pushed into work, which is good for them, and restrained from play which, by the same token, is bad for them. To him, play was highly beneficial for children. It made education pleasant and effective and was in itself educational. He concluded that

play is the highest phase of child development. Play is the purest, most spiritual activity of man at this stage, and at the same time typical of human life as a whole—of inner, hidden natural life in man and all things. It gives, therefore, joy, freedom, and contentment, inner and outer rest, peace with the world. It holds the source of all that is good.<sup>6</sup>

In the half century preceding the kindergarten the educational value of play was recognized, but the emphasis was on physical values. With Froebel, the intellectual emphasis was made supreme.

Physical educators, as naturalists, have long recognized that the origins of physical education are to be found in "unlearned cores of behavior." We use man's native tendencies to be active, to combat threat of bodily harm and to avoid boredom, inactivity, and monotony

<sup>5</sup> John Amos Comenius, *The Great Didactic*, translated by M. W. Keating (London: Black, 1896), p. 463.

<sup>6</sup> Friedrich Froebel, *Education of Man*, Trans. (New York: Hailman, 1857), p. 534.

by new adventure, exploration, zestful activity, and self-expression. We help conquer feelings of failure, weakness, and inferiority by providing opportunities to strive for success, mastery, and achievement. Man, being a gregarious animal, resents being unwanted, unloved, or rejected by his peers. Physical education contributes to a sense of belonging to a larger social unit by allowing for sharing and participating in team games and other group ventures.

Upon these native tendencies we have thus grafted a habit or custom, a game or physical activity which are approved as desired educational ends. Physical education does not eliminate nature but cooperates with it to attain higher ends than would be reached by nature so unaided. For this reason, we favor the supervision (not the domination) of play in order to secure educational ends by readier and direct means.

Biologists and psychologists emphasize that the primary bases of play are found in man's nature, which is predisposed to physical exercise and restless mental curiosity. Play activities are important agencies of early growth and a natural basis for education. Indeed, play itself is education, a view which is now universal.

Some principles of Naturalism applied to education follow.

#### NATURALISM

1. *Philosophical Viewpoints and Educational Objectives*
  - (a) To educate according to nature by preserving the natural virtues of the individual and creating a society based on individual rights.
  - (b) "Teachers do not teach subjects, they teach pupils." Attention is directed to the person being taught.
  - (c) There is no use in making a man mentally fit and neglecting his physical fitness. Education is for the body as well as the mind.
  - (d) There should be a healthy balance between mental and physical activities.
  - (e) Education should be pleasurable and should therefore be in accord with the present development of the student's physical and mental equipment which makes him "ready" for learning.
  - (f) Spontaneous self-activity in the acquisition of knowledge is an important part of education.
2. *Curriculum Content*
  - (a) Careful and systematic organization of content according to the laws of growth and development, e.g., infancy, childhood, early adolescence, adolescence, adulthood.
  - (b) Activities selected according to the developing maturity-level and interests of the pupils.



- (c) Plentiful opportunity for informal exercises at each developmental level of senses, muscles, and speech. Physical education activities of various types supply important developmental needs.
- (d) Herbert Spencer's (1860) education for "complete living" presents naturalistic objectives which suggest curriculum content as:
  - (1) Those activities which directly minister to self-preservation (Health-Safety).
  - (2) Those activities which, by securing the necessities of life, indirectly minister to self-preservation (Vocation).
  - (3) Those activities which have for their end the rearing and discipline of offspring (Education for family life).
  - (4) Those activities which are involved in the maintenance of proper social and political relations (Citizenship).
  - (5) Those miscellaneous activities which make up the lesser part of life, devoted to the gratification of the tastes and feelings (Leisure time).<sup>7</sup>

### 3. *The Organization of Learning Experiences: Method*

- (a) Education, to fulfill its function, should be attuned to the natural and periodic rhythms of development in children and youth.
- (b) The child learns with his entire body as he builds perceptions and establishes relationships. In a sense, he educates himself in great measure.
- (c) A child's predilections for and liking for an activity are good indices for the kind of activity which will contribute to his education at a given stage of his development.
- (d) The child is a body, a little animal. One of the first requirements is that he be a healthy, vigorous animal, capable of standing the wear and tear of living, hence activity rather than passivity is a keynote to method.
- (e) The method of instruction is primarily inductive, reasoning from particular facts or individual cases to a general conclusion; discovering generalizations, e.g., "The longer the tube, the lower the note" or "A falling barometer indicates rain."

### 4. *The Pupil and the Teacher*

- (a) The teacher is a guardian and developer of human personality rather than a task master. He exemplifies the concepts of the gardener rather than those of the builder.

<sup>7</sup> Herbert Spencer, *Education: Intellectual, Moral and Physical* (New York: Hurst and Company, 1860), p. 17.

- (b) The teacher is the guide and hunter leading the pupil to adventure and new experience but lets the pupil "bag the game."
- (c) Nature expended great energy to make people different. Each pupil has unique potentialities and therefore separate and distinct learning needs and requires different types of learning activities.

### 5. *Evaluative Criteria*

- (a) Naturalism favors extroversion or interest in the outer or objective world. The extrovert is a person of action, who expresses his feelings through skeletal activity by doing something. Dominated by external and social values, he is able to achieve close sympathy with others.
- (b) Education recognizes the "organismic needs" concept and accepts the theory that there are fundamental forces within the individual which seek expression and satisfaction, e.g., the need for activity, food, rest, affection, recognition, group status, achievement, and security. These are "natural states" of humans and education must aid in satisfying these basic needs.
- (c) Education is not simply mental, it is physical and moral. The teacher, knowing the pupil, determines the goal but the pupil furnishes the impulse toward his own development. The ultimate criterion is not, "What has the child learned?" but "What has the child become?"

Physical educators acting as naturalists recognize

1. That the biological conception of education emphasizes the organism as a center of reactions.
2. That, when the child confronts the world into which he is born, he is already equipped with certain capacities, innate powers, and natural tendencies which determine his fundamental needs. His primary responses to the environments shall be in the attempt to meet these needs.
3. That individual development as progress toward maturity represents the unfolding of native abilities within the limits of inherent capacity and is an important concept for progression in education.
4. That learning comes through self-activity. Activity is the sole source of the development of capabilities planted in the organism by heredity.
5. That playing is a form of self-activity that is worthwhile for its own sake, but at the same time, we want playing under conditions and with suggested materials that shall result in ade-

quate physical exercise, social interaction, and the standards and practices of moral conduct.

6. That learning lies in the recognition of a need and the carrying out of constructive acts to meet it. A child's adjustment to his environment is something which he must effect for himself through his own activities.
7. That education at the nursery school and the primary levels is most important because it comes *first* and lays the foundation for what follows.
8. That, as the most characteristic spontaneous activity of the child, play becomes the basis of the educational process in the early grades.
9. That play, resulting most directly from the native interests of the child, furnishes the best natural stock upon which to graft desirable habits of action, feeling, and thought.
10. That it is through play that the child first represents the world to himself, permitting the teacher to introduce him to the world of social relations, build in him a sense of independence and mutual helpfulness, and provide him with initiative and motivation.
11. That man is a psychobiological unit and that psychosomatic medicine verifies that physical activity is necessary to the growth, the health, and the happiness of man—mental as well as physical. The body is the instrument through which the mind expresses itself.
12. That the biological conception of education, puts into the foreground the ideal of the whole self. Mind and body cannot be educated in isolation from each other.

We end this discussion by saying that physical education has a mental aspect, and mental education is bound up with bodily conditions and with motor activities. In every school task intellectual, emotional, and volitional processes play a part, each being necessarily involved; hence methods of instruction that ignore any of them lack vitality and the normal reality of life. Consider the self-expression of a boy playing a game of baseball. Many learnings merge into a single pattern of playing the game as a whole. The game of baseball, a total situation and a stimulus pattern, calls for response to a number of different stimuli, but these stimuli are interrelated, one to the other. He learns to bat (skill), to distinguish a curve ball from a straight ball (visual perception), to remember signals (memorization), to comprehend why a "hit and run play" is in order (understanding), to plan on where to make a play with two men on base if the ball comes to

him (thinking), to hold his tongue when the umpire calls him "out at the plate" (modification of emotional reaction), and to like the game of baseball and develop great loyalty to his team (attitudes and ideals).

We see here that in the activity of the organism (the man as a *whole*) all parts, organs, specialized structures, and physical and mental tendencies are interdependent and interrelated.

### PHYSICAL EDUCATION AS PRAGMATISM

Pragmatism, from its etymological origin, refers to a theory or method of dealing with real things in the sense of being practical or efficient. As a philosophy, it began as a revolt against intellectualistic speculation which characterized idealism and most modern speculative philosophy. Pragmatism contends that the truth or validity of a principle or belief depends upon its effect on practice. The central problem of pragmatism is "what is truth and how is it to be distinguished from error?" Charles Sanders Pierce (1839-1914), one of the early pragmatists, formulated the principle that "every truth has practical consequences, and these are the tests of the truth." Pragmatism is a form of empiricism—knowledge of nature based on experience and experiment; on observation and induction.

Pragmatism is often referred to as experimentalism or implementalism and sometimes as Deweyism. Life is largely a matter of finding out what is workable, and this finding out is an experimental procedure. Truth can be proved only by results. We are always experimenting—seeking better results. It follows that our conception of truth must coincide with what we find. This is pragmatism's central point of view, and it is evident that it is strongly involved in the phenomenon of change and progress—giving up what is good for what is better. One applies the pragmatic test—experiments—to describe how truths are developed, how errors are corrected, and how in general old truths are adjusted to new situations. The experimentalist opposes the idea of absolute values, a static society, or a static education. His basic interest is continued improvement of practice, making testing of thought a better guide to action. Pragmatism, therefore, is the experimental method of science.

Applied to education by Dewey (1859-1952), its chief expounder, pragmatism stresses the importance of first-hand experiences; that we reason with data in the solution of problems; that teaching children how to think is more important than teaching them what to think; that education should involve the whole organism; that it should be "for both hands and minds of children"; and that, since "life

only educates," the school should not be divorced from life. Therefore functional, meaningful, purposeful learning should be stressed. Dewey, who had a great reputation for obscurity in his prolific writings, affirmed the supremacy of intelligence and the importance of creativity, meaning, and insight. Education was considered as growth in practical judgment which, in turn, involved growth in ideas, tastes, principles, and skills; this could come about only by disciplined methods of thinking through problem situations in judging ideas, ideals, and principles by their consequences. This type of education leads to intelligent practice.

Axtelle states that "pragmatism is a peculiarly modern and American philosophy, a critical and systematic expression of American culture. It is the practical mentality of the frontier, disciplined and cultivated by the sciences, whetted by invention and technology, enriched by the arts, inspired by the ideals of democracy and free men, challenged by the problems of industrial society."<sup>8</sup>

Some generalizations concerning education operating under the philosophy of pragmatism would appear as follows:

#### PRAGMATISM

##### 1. *Philosophical Viewpoints and Educational Objectives*

- (a) Learning is an activity phenomenon. Learning like thinking always begins in the midst of movement and activity.
- (b) Experience is vital to learning. In coping with everchanging experience, the student carries away the residue of one experience to solve problems faced in subsequent experience.
- (c) Dewey's definition of education as "the continuous reconstruction of experience as adds to the meaning of experience and increases ability in its subsequent direction" leads to the popular statement that "the general objective of education is more education."
- (d) Dewey, as the leading exponent of pragmatism, was the first to team philosophy with education by defining philosophy as the "general theory of education."
- (e) Life is primarily social, at the same time that it is individual. Social efficiency, or effectiveness in maintaining social relations, is an important general objective of education.
- (f) Problems and projects challenge the powers of insight, stimulate interest and thinking; therefore isolation of the elements of any problem faced is basic to its solution.

<sup>8</sup> George E. Axtelle, "The Pragmatic Theory of Education," ed. P. F. Valentine, *Twentieth Century Education* (New York: Philosophical Library, 1946), p. 89.

- (g) The most important test of truth is "Does it work?" Thinking, such as associated with the scientific method, is highly valued and encouraged.

## 2. Curriculum Content

- (a) Information becomes knowledge when it is put to use; therefore the testing of hypotheses or "hunches" by experimentation in any area of curriculum content is important.
- (b) Students are encouraged to accept "natural laws" and scientific generalizations as ways of telling them what has happened or what they may expect to happen.
- (c) The most fundamental criterion for the selection of curriculum content is its pertinence to present life; therefore school practices should give pupils a sense of reality by projects and problems demanding use of workshops, laboratories, and libraries, thus inspiring educational experimentation.

## 3. The Organization of Learning Experiences: Method

- (a) Creative and constructive projects are employed so as to broaden the cycle of learning. "Core" projects which cut across subject matter lines and escape the frozen rigidity of departments, courses, time, and schedules are encouraged. The emphasis is on meaning and the integration of learnings from many fields around some central theme or purpose. This is exemplified in the better "unit" plans.
- (b) Learning experiences are devised which avoid making passive receivers of pupils waiting to be impressed. Rather the purposefulness and meaningfulness of projects catch the imagination and encourage students to reach and engage in valued experience.

## 4. The Pupil and the Teacher

- (a) Pupils are primarily organisms. The pragmatist does not regret that when Johnny comes to school he must bring his body with him.
- (b) The doctrine of individual differences respects individuality of pupils, yet desirable social relationships of all kinds are encouraged.
- (c) The teacher avoids the cloistered and formally academic by keeping close to experience and having students draw real meanings from it in a social setting.

## 5. Evaluative Criteria

- (a) Pupils are expected to be not only contemplative but also operative, i.e., doers as well as thinkers.

- (b) Pupils are expected to be optimistic, somewhat impetuous, democratic, seeing and protesting what is wrong in society about them and looking toward a brighter future, despite the present and past.
- (c) Pupils have a sense of reality about the school and its operations; they want to have a part in them and are willing to engage in experimentation which might improve them.
- (d) Democracy is enhanced by having each student progress to the maximum of his capabilities but with some special ability so as to make a contribution for the common social good of all.

If a physical educator accepts some of the tenets of the philosophy of pragmatism, these are some of the things he would do and believe:

1. Being "child-centered," he would be concerned with the needs and purposes of students and adjust his curriculum accordingly.
2. He would consider student purposes before abilities, realizing that students want abilities in order to achieve purposes which to them are important.
3. He would stress natural activities (games and sports) in his program rather than formal gymnastics, marching and the like, thereby bringing the activities closer to life.
4. He would teach skills, but always reintegrate them into the broader patterns in which they are used. Students would see the application of the skills to the game as a whole. Bunting in baseball is practiced after team failure due to poor bunting ability. Pivoting and stopping is practiced after repeated fouls for "traveling" in basketball.
5. Rather than having plays called for them from the bench, players would develop understandings, insight, game intelligence, and ability to adapt "on their own" to changing game situations.
6. Learning by doing is stressed, but along with the doing, real understandings are developed. The "what" and the "why" accompany the "how."
7. Pupils would be given an opportunity to express their opinions and ideas and to make suggestions of "how to improve things."
8. Practice in sports and physical education in classes would be pleasurable experiences.
9. Progression in instruction is based on past experience, and, at the same time, it continuously leads on to future experience. It is thereby implementing Dewey's idea of education as involving "continuous reconstruction of experience."

10. He would organize his classes as "miniature societies" and would stress democratic ideals, in the belief that the characteristics of the individual are derived partly from society and that the individual helps determine the nature of the social group of which he is a part.
11. He would organize his instruction in units which represents a series of worthwhile experiences bound together around some project theme of central interest. For example, a unit in "track sports," "field events," "diving," or "lawn games."

To those of us in physical education the "activity movement" is not new. The activity and experiences of pupils have always been important considerations. The question of meaningfulness has scarcely been a real problem to us for play is an activity which supplies its own drive. We are essentially people of action and, we hope, of thought as well. We are pragmatists, to a degree. We teach manners, morals, character, skill and the like through action, through doing. We teach, live in, and deal with dynamic situations. We see children as they are, their physical shortcomings, their ability or inability to adjust to other personalities, their emotional tone, the presence or absence of dynamic drive. Practically every aspect of personality is open to us for inspection, study, and influence.

### THE MEANING OF PRINCIPLES AND VALUES

Responsible teaching involves the teaching of conclusions supported by sound principles which guide pupils to effective action. Principles represent relationships between facts and the judgments derived from these relationships. A principle may be identified by the following criteria:

1. Is it verifiable? Can it be proved?
2. Is it a fundamental truth, law, doctrine, or motivating force upon which others are based?
3. Can it be illustrated by application?

To illustrate, one may apply the criteria to the following principles:

*In physics:* "Energy can be changed from one form to another, or to matter, with exact equivalence."

*In chemistry:* "No chemical change occurs without an accompanying energy change."



*In biology:* "As long as life continues in an organism, energy is being released."

We shall see that physical education being eclectic, as inferred from the preceding philosophical discussion, draws its principles from many sources. To illustrate further, we shall seek, in subsequent chapters, to implement or apply many principles, such as:

1. *Life depends upon the fulfillment of basic physical needs* (good food, fresh air, protection from disease, sufficient exercise and outdoor play, balanced relaxation and rest).
2. *Physical needs cannot be fulfilled in and of themselves* (children need good food, yet if they are tense, anxious, or excited they cannot eat. To help children grow, one must also recognize that basic social and emotional needs must be met).
3. *The intelligent cooperation upon which the success of a democracy depends must be learned in the school* (democracy involves a way of living together which demands thinking about social problems, choosing between alternatives, reaching conclusions, voting).

Sound practice in physical education can emerge only where there is a wide acceptance of fruitful principles and generalizations on which a system of thinking can be founded. Every effort should be made to distinguish between naive and systematic thinking. Enough sound principles exist that, if applied, could result in a superb system of physical education.

Since education is a matter of ideas and of ideals, one may ask, "What are the outstanding ideals that ought to dominate life in America? What are the things of proved worth? How can physical education teachers find ways and means of making pupils conscious of their need of these in such a vital fashion that they find enjoyment and satisfaction in the right rather than the wrong things?" This will depend upon their ability to determine what values are of *most* worth. Since, in a world as complex as ours, it is difficult to learn what things are of most worth, the training of pupils in the processes and powers of making fundamental value judgments becomes one of the central problems of education. The solution of this problem is one of the areas in which physical educators (including athletic coaches) must bear heavy responsibility. In this case we must act as pragmatic-idealists!

Carrell, were he speaking of education through the physical, would probably demand that the physical educator be subtle yet sensitive in teaching for *values*. He implies this when he states that

the education of the intelligence is relatively easy. But the formation of moral, esthetic, and religious activities is very difficult. The influence of environment on these aspects of consciousness is much more subtle. No one can learn to distinguish right from wrong, and beauty from vulgarity, by taking a course of lectures. Morality, art, and religion are not taught like grammar, mathematics, and history. To feel and to know are two profoundly different mental states. Formal teaching reaches intelligence alone.<sup>9</sup>

While attitudes may be considered tendencies to act which guide our perception and learning, values are the goals toward which action is desired. Ideals are "traits which become objects of desire" (values). In this sense, values always color attitudes and attitudes always color values. Not only is our philosophy our chief source of direction but also it represents the value system by which we interpret events on the track, field, floor, or in the swimming pool—everywhere—and by which we direct our action. Our values are our beliefs. "Because values are beliefs they serve to inspire the members of the society to act in the approved ways. Because values are ideal pictures they provide a means of judging the quality of actual behavior. In this role they become standards."<sup>10</sup> Here we approach very closely what we mean by *character*. For the moment, then, we conclude that character education has something to do with young people developing a wholesome value system. We shall return to this matter in a later chapter when various types of "learning outcomes" are discussed.

Since values are the greatest motivating factors in human life, teachers, and pupils must agree on what values are of most worth. The primary business of the school is to clarify values; to show how they are to be used in personal and social thought and action and to provide experiences in their application.

The essential difference between man and the lesser animals is that he strives to change his environment and to build a different kind of a world to meet his particular needs, whereas other forms of life, in the course of evolution, adapt themselves to their surroundings. If education is world building, physical education must share responsibility for the values it instills in youth in the present "struggle for men's minds." We cannot fail to heed Counts' warning that

the essence of any civilization is found in its values—in its preferences, its moral commitments, its aesthetic judgments, its deepest loyalties, its

<sup>9</sup>Alexis Carrell, *Man the Unknown* (New York: Harper & Row, Publishers, 1935), p. 151.

<sup>10</sup>Ralph H. Gabriel, "Traditional Values in American Life" (prepared for round table discussion), U.S. National Commission of UNESCO, 1960. Copyright by Harcourt, Brace and World, New York, 1960.

conceptions of the good life, its standards of excellence, its measures of success, its teachings regarding things for which and by which men should live and, if need be, die. The issue at stake in the coming years is nothing less than the birth, death, and survival of values.<sup>11</sup>

Value systems are not innate or fixed but are acquired through the process of learning. They represent determining tendencies, the behavior of the pupil in ways that are of considerable importance to his own happiness and that of others. Hence, it follows that a significant part of the task of the physical education teacher is to contribute directly to the value orientation of members of the school community.

Plato sensed these possibilities when he said "the plays of children have the mightiest influence on the maintenance of laws—from the first years of childhood their plays ought to be subject to laws for if they are arbitrary and lawless, how can children ever become virtuous men, abiding by law?"

The rules of games represent mores (folkways considered conducive to the welfare of society), and the morality of each player is judged by the degree to which his behavior conforms to rules. A value-system is a derivative of the code of rules by which a game is played, for

1. "It supplies the individual with a sense of purpose and direction.
2. It gives the group a common orientation and supplies the basis of individual action and of unified, collective action.
3. It serves as the basis for judging the behavior of individuals.
4. It enables the individual to know what to expect of others as well as how to conduct himself.
5. It fixes the sense of right and wrong, fair and foul, desirable and undesirable, moral and immoral."<sup>12</sup>

The deep-lying mores of society are, in a sense, the rules of the larger game of society by which citizens are to be judged good or bad.

## PHYSICAL EDUCATION AND SOCIAL PHILOSOPHY

Democracy, Socialism, Communism, Fascism, and Naziism represent differing types of social organization and therefore different social philosophies. Each type of social organization and philosophy breeds

<sup>11</sup> George Counts, *Education and American Civilization* (New York: Bureau of Publications, Teachers College, Columbia University, 1952), p. 217.

<sup>12</sup> B. Othanel Smith, William O. Stanley, and J. Harlan Shores, *Fundamentals of Curriculum Development* (Yonkers, N.Y.: World Book Company, 1950), pp. 89-90.

a population with discernible personality differences. The Frenchman differs from the German, the German differs from the Englishman, and the Englishman differs from the American. If we examine the games these various nationals play and the ways they play them, we see some relationship between these facts and the national character of the people. The type of sport, the nature of interest and participation, is, in America, a strong clue to our national character. Former President Herbert Hoover is quoted as saying, "Next to religion, baseball has furnished a greater impact on American life than any other American institution." This opinion is somewhat confirmed by Reiss, who, in a study describing the value attitudes of 22,000 adolescent boys and girls in school, concluded that boys are as likely to place as high a value on athletics as on religion as an aid in life.<sup>13</sup>

Many elements of our changing American culture will be considered elsewhere in this volume. At present, we are concerned with democratic American values and the relation of physical education to these. Our social philosophy is called democracy. It represents the type of social organization to which we give allegiance. The great ideal of American democracy, as it has been handed down to us, represents many diverse streams of thought that have contributed to it. It sprang from the Hebraic-Christian ethic and the democratic tradition of the western world, nourished by frontier living conditions and individual initiative. Somehow, somewhere, and long ago, the idea arose that man himself, as a person, is something of real worth, in and of himself. This revolutionary idea—an embodiment of the Hebraic-Christian ethic—placed value on men rather than things, stressed the solidarity of the human family, the supremacy of the common good, and equal rights for all. Love, not force, was the social bond, and cooperation rather than competition was the law of progress. These ideals are woven into our American Constitution and form the underlying principles of human relationships in American democracy.

It is a self-evident truth that the school must advance the ideas of the society which maintains it. The intelligent cooperation upon which democracy rests must be learned in the school. This is the justification for our elaborate system of free public education. Truly, our schools have kept us free by providing an enlightened citizenry in order that self-government might work; by creating national unity with a common language and heritage reflected in our games, our literature and songs; and by providing the images and values from which national spirit is made. Out of many, the school has made us

<sup>13</sup> A. J. Reiss, Jr., *A Sociopsychological Study of Conformity and Deviation among Adolescents* (Washington: U.S. Office of Education Project #507 [8133] 1959).

one as it taught American ways of life and thought to the millions of immigrants who came to our shores. On our playgrounds and athletic fields, the rich and the poor, the Catholic, Protestant, and Jew, and boys and girls of various races, creeds and colors play side by side without question, in common unity, in common cause, for a common benefit. In sports, as in no other aspect of our social life, there is no "right or wrong side of the tracks."

Many scholarly observers note evidences of erosion of the American value system under the shifting trends and forces making for social change. Rigged "quiz programs," "point shaving" in basketball, illegal subsidization of athletes, and collusion and price-fixing in industry, are examples. One purpose of this volume is to encourage teachers and prospective teachers to reexamine their own respective value systems and to endeavor to determine real measures of what is "good" and "right" rather than what is expedient. Physical education and athletics, more than any other areas of education, provide opportunities for "moral spine-stiffening" on our part and on the part of the youth to whom we may give a deeper understanding of themselves in preparing them to face up to and surmount the many challenges to our democratic ideals and leadership.

Democracy is a code of living and an attitude of mind. Although not a technique, democracy calls for certain techniques. Individually, it represents learned behaviors and these behaviors become the criteria of democracy. We judge it daily in the gymnasium or on the playground by the following simple tests:

1. Taking turns and sharing.
2. Being a "good sport."
3. Faithfulness in adversity—no "fair-weather friendships."
4. "Playing the game."
5. Working "for the good of the team."
6. Not "letting the other fellow down."
7. Giving more than one gets—not for oneself but for an ideal, or for one's school, city, or nation.
8. Being concerned about what others think of you.
9. Obeying the "rules of the game"—being a decent law-abiding citizen.

Our dual functions in discharging our responsibilities as educational contributors to democratic social philosophy through physical education are firstly, to install democracy's ideals in the minds and spirits of our pupil-citizens, and secondly, to help spell out these ideals and principles in practice, to show how they are used in social

thought and action, and to provide experiences in using them in the gymnasium, on the playground, and on the athletic field.

If one cares to be a bit more sophisticated and personalize the evaluation of a democratic personality, he might ask himself

1. Do I respect the individuality of others; recognize the dignity and worth of each individual, and consider the rights of others?
2. Do I think, speak, and act freely but with due regard for the rights of others?
3. Do I cooperate freely with others and willingly make some personal sacrifices for the common good?
4. Do I accept a majority decision, yet respect the rights of the minority?
5. Do I base my decisions on a careful study of the facts and solve problems by thinking them through rather than by resorting to force or emotion?
6. Do I discover and accept my own inadequacies and try to overcome them if possible?
7. Am I flexible in adapting myself to changing conditions in a democracy by inviting change for the social good?
8. Am I able to govern myself and assume responsibilities inherent in the freedom of a democracy and accept responsibility for the physical and social consequences of my own acts?

Ideals and attitudes evolve progressively with the experiences which create them. We do not produce democratic behavior in a citizen by merely giving him information about social and political processes; we do not teach children to be courteous by having them memorize "rules." The only effective training for citizenship in a democracy is *practice* in democratic living. Thus, training for living in a democracy and good physical education as exemplified by carefully organized programs are one and the same process.

## PHYSICAL EDUCATION AND PHILOSOPHY OF EDUCATION

Physical education has too long been considered by many as a dangling appurtenance to the academic structure rather than an integral part of it. From the biologist's point of view, education is the control of *nurture* (environmental factors) so as to make the most and best of hereditary *nature*. Development is the expression of heredity in a favorable environment, and childhood, therefore, implies a continuation of the mysterious process toward maturity in which the inherited nature is expressed under the influence of appropriate nurture or education. The pupil is a center of biological energy which can be

diverted in many different directions for diverse purposes. The quantity and quality of a pupil's energy depend upon the inseparable union of nature and nurture.

The child by nature is lively, growing, developing, and dynamic. The plasticity of the nervous system is verified by the modifiability of human nature by education. Since the development of each child is an integrated or unitary process the degree of relationships between the various aspects of growth helps us to understand the complex interactions that together make up the development of the child as a whole.<sup>14</sup> Physical education teachers realize that children grow socially and emotionally as they grow physically from year to year, developing greater complexity of social behavior, greater skill in getting along with other people, and greater powers of self-control. Children are benefited socially and emotionally when they learn specific skills which are useful in building self-confidence and prestige with other children. The human organism is a totality and reacts as such. We do not have minds removed from bodies to be trained. When we learn, we learn as a totality. Skilled movement is learned as an integral part of the whole, for the nervous system is an apparatus which always functions as a whole. *Activity* is the sole means of developing the capabilities that are planted in the organism by heredity. All aspects of development are stimulated by conditions that encourage such activity. The quality of development in physical education will depend upon the *kinds* of activity we select and how well we teach them.

All aspects of growth are interrelated. A child reacts as a total being . . . his intellect is related to his physical well-being; his physical health is sharply affected by his emotions; his emotions are influenced by school success or failure, by his physical health and by his intellectual adequacy . . . what he accomplished in school, in play, or any other part of his living, is deeply and continuously affected by his physical health, by his intellectual adequacy, by his interests in his work and play and by his emotional freedom to attend to it.<sup>15</sup>

Physical education is basic education—that which is fundamental or essential. Heart, lungs, and other vital organs owe their development and power to the demands and stimuli of the muscular system.

<sup>14</sup> Willard C. Olson and Byron O. Hughes, "Growth of the Child as a Whole," *Child Behavior and Development*, eds. Roger G. Barker, Jacob S. Kounin, and Herbert F. Wright (New York: McGraw-Hill Book Company, 1943), pp. 199-208.

<sup>15</sup> Marian E. Breckenridge and E. Lee Vincent, *Child Development* (Philadelphia: W. B. Saunders, 1935), pp. 13-14.

Likewise, the muscular system is the key to the development of the brain and central nervous system as well. So important was arboreal life and the use of the hand as factors in the development of the cortex that Tilney, a famous neurologist, refers to the brain as a "hand-made organ."

One nationally important education group reminds us that

The central purpose of education is to develop rational powers of the individual or capacities to think and reason. Basic to this development is physical health since disease, defects, and disability may interfere with learning. Mental health is also of profound importance; with it the pupil may have the desire and respect for learning that promotes optimum mental performances; without it the likelihood of such development is drastically reduced if not rendered impossible.<sup>16</sup>

Let us come to the point! If education is concerned with changes in people, our *objectives* represent the direction of change and reflect the values we wish to achieve. Our objectives reflect our philosophy. Unless teachers of physical education have a clear idea of what the school and society as a whole consider educationally important, they will not know how to select and organize learning experiences to help achieve these ends. If general education is the kind of education intended for everyone and is concerned with one's nonspecialized activities, no matter what his present or future vocation may be, physical education becomes an integral and important part of this education. For general education is concerned with the total personality, not merely the intellect but with emotions, attitudes, tastes, and appreciations. It is concerned not so much with what is learned as with the qualities that one develops in the process of learning.

It might be helpful to suggest to the reader that he examine the functions of general education and those of physical education that grew out of two respective value systems or philosophies. Are there any marked distinctions between the two? If so, what are they?

#### FUNCTIONS OF GENERAL EDUCATION

(Stated in terms of pupil attributes as desired outcomes.)

1. To develop and maintain a condition of personal good health and fitness.
2. To develop effective methods of thinking.
3. To inculcate desirable social attitudes.
4. To cultivate useful work habits and study skills.

<sup>16</sup> Educational Policies Commission, *The Central Purpose of American Education* (Washington: National Education Association, 1961), p. 15.



5. To develop a wide range of significant interests.
6. To develop an increased appreciation of the dance, music, literature, art, and other aesthetic experiences.
7. To develop social sensitivity and better personal social adjustment.
8. To insure use of leisure in right ways.
9. To insure acquisition of important information.
10. To develop a consistent philosophy of life.

#### FUNCTIONS OF PHYSICAL EDUCATION

*(Stated in terms of teaching goals for desirable pupil attributes as outcomes.)*

1. To develop not only muscles and other organs but to stimulate growth and development of the individual as a personality with respect to appropriate social and psychological outcomes as well.
2. To develop a wide range of physical attributes such as muscular strength, good body mechanics, ability to resist fatigue, flexibility, and agility.
3. To provide situations demanding judgments in time and space and gradually in more complicated game situations; to establish situations favorable to creative intelligence.
4. To encourage activities involving grace and rhythm and improved reaction time as well as a wide range of individual, dual and team game skills conducive to participation and its resultant benefits.
5. To contribute to the realization of the democratic ideals in the daily life of pupils in the gymnasium and on the playing fields.
6. To foster healthy social growth by providing friendly and sociable contacts by means of games, sports, camping and related activities.
7. To encourage close cooperation with the general health and guidance services within the school for well-coordinated programs to achieve optimum health, both mental and physical, for each child.
8. To coordinate activities of the school-centered recreation program with that of the community.

In a later chapter the school curriculum in physical education will be discussed as the medium for education, consisting of a series of rich and guided experiences with some definite order of priority (progression) and directed toward the fulfillment of the education functions above indicated.

### SOME DEFINITIONS OF PHYSICAL EDUCATION

One's philosophy is reflected in his definition of physical education, for a definition marks the limits of a word or term, i.e., sets boundaries as to what is and what is not included. A definition should help us to determine the precise significance and set forth the meaning of physical education.

We have gone through the terminological stages from physical culture to physical training to physical education, and many are still dissatisfied and seek a new term to describe our educational area. The three terms, above mentioned, evolved as the concepts of physical education grew from mere "exercise" and emphasis on the "body beautiful" to the concept of man as a unitary organism. When the organism responds, it responds *in toto* with brain, heart, stomach, skeletal muscle. Psychiatrists know that many physical ills are found in the realm of attitude and emotion; they deny the duality of mind and body. This psychosomatic concept of medicine recognizes the profound importance of biological integration, the relation of parts to the whole, and of mind to the body. Human beings are indivisible. In every task, intellectual, emotional, and volitional processes play a part. We have noted how the motor, social, emotional, and intellectual development of the young are highly interrelated; one aspect of development has its influence on all aspects. All education, in a sense, takes place through the *physical*; through the organism which is physical. How can a teacher of physical education, therefore, limit his objectives to physical outcomes? Many associated and concomitant outcomes, planned or unplanned, emerge as well.

The following definitions, selected at random, are presented without appraisal or comment. It is suggested that the readers evaluate them critically by some criteria and that they try to find common concepts like activity, growth, development, change, and the like which are explicit or implied in many of them.

Physical education is an integral part of the total education process and has as its aim the development of physically, mentally, emotionally, and socially fit citizens through the medium of physical activities which have been selected with a view to realizing these outcomes. (Charles A. Bucher)

Physical education is a way of education through physical activities which are selected and carried on with full regard to values in human growth, development, and behavior. (*Physical Education Platform, American Association for Health, Physical Education, and Recreation, Washington, D.C., 1949.*)

Physical education is the social process of change in the behavior of the human organism, originating primarily from the stimulus of social-big-muscle-play and related activities. (C. C. Coucell)

Physical education is that phase of the school program which is concerned largely with the growth and development of children through the medium of big-muscle activities. (*The Society of State Directors of Physical Education and Health.*)

Physical education is that phase of education which is concerned, first, with the organization and leadership of children, in big-muscle activities, to gain the development and adjustment inherent in the activities according to social standards, and, second, with the control of health or growth conditions naturally associated with the leadership of the activities so that the educational process may go on without growth handicaps. (Clark W. Hetherington)

It may aid the reader to note that the frequent use of the term "big-muscle activity" is probably for the purpose of implying use of the large fundamental muscle groups employed in jumping, running, climbing—in all athletics—in contrast to the small muscles groups employed in such activities as writing or drawing. Furthermore, the term *physical* before the word "education" implies education *through* or by means of predominantly physical activities. Therefore, it may be distinguished from music education, science education, or any other particular area of education, primarily by the *means* employed to educate youth.

## SUMMARY

Philosophy, which represents one's true beliefs, is the basis for choice of action. It derives from history, science, tradition, and common sense. A philosophy of physical education is based, in part, on a variety of philosophies. It draws on Idealism for moral values. From Naturalism, it gives recognition to "unlearned cores of behavior," the intellectual value of play, and the need for cooperating with nature. From Pragmatism, it derives some

of its practicality, learning by doing, influencing how to think and act via activity, creativity, and the experimental method in its many other aspects. Facts from biology, physics, chemistry, anthropology, and the gamut of sciences are also utilized in the forming of a philosophy of physical education. This philosophy will tell the "what" and the "why," thereby giving purpose and reason to the educational program.

Principles come from philosophy and scientific and historical facts in the form of guide lines for intelligent action. Principles of physical education, being drawn from many sources and many disciplines, are therefore selective—eclectic. They are fundamental judgments which guide programs of physical education to desirable results. Responsible teaching of physical education must arrive at conclusions about education in and through activity. These conclusions must be based on sound principles.

Social philosophy being the basis for social organization is likewise one of the many bases for physical education. Our social philosophy is called democracy. It follows, therefore, that our physical education must be taught on principles of democracy—principles which place value on men rather than things. In games and sports, talent and social behavior alone, rather than socio-economic status and the color of one's skin, become the criteria of acceptance.

The philosophy of general education involves the total personality. Physical education is concerned with developmental activities, and its objectives must therefore reflect this same kind of concern for what happens to the whole person.

## THOUGHT PROVOKERS

At the end of this first chapter, it is well to remind the reader that this book deals with philosophy and principles of physical education. Principles are fundamental truths which guide us to action in the solution of problems; they are judgments derived from facts after seeing the relationships between the facts.

Elsewhere we have stated that a principle is a generalization which may be identified by the following criteria:

1. Is it verifiable? Can it be proved?
2. Is it a fundamental truth, law, doctrine, or motivating force upon which others are based?
3. Can it be illustrated by application?

Here, and at the end of subsequent chapters, appears a set of "Thought Provokers:"

1. A series of generalizations (most of which are principles, according to our criteria) are given. The reader is asked to illustrate the operation of each principle by some specific situation.
2. A series of situational statements in which the reader will be asked to determine what specific principle or principles are operating in the situation.

*Applying Principles*

Illustrate by application the operation of each of the following principles:

1. Science determines means while philosophy determines ends.
2. Science gives us knowledge but only philosophy can give us wisdom.
3. What changes we try to bring about in our students as individuals and in society will depend on our value assumptions—our philosophy.
4. Educational objectives should be in line with the kinds of social policies which claim our allegiance.
5. Attitudes and ideals evolve progressively with the experiences which create them.
6. Educational philosophy and social philosophy should be fully compatible.
7. The foundations of education should be based on sociology.
8. Educational philosophy cannot be divorced from the society it serves.
9. Teaching of effective team work and rules of the game helps to instill democratic ideals in students.
10. A democratic person should be able to face self-evaluation and self-criticism.
11. The principle of balance between individual freedom and group welfare is basic in a democracy.
12. If a democracy is to exist and thrive, social mobility must thrive.
13. Intelligent compromise is an important factor in a democracy.
14. The only effective training for citizenship in a democracy is practice for democratic living.
15. The intelligent cooperation upon which our democratic social philosophy rests should be learned in school.
16. A democracy should reconcile the rights and duties of one individual to another and to society.
17. The human problems of living together are constantly in a state of flux, and therefore superior education is needed to solve them.
18. Personality is molded by the type of social organization to which the individual belongs.
19. The success of a group depends upon integrating the efforts of the individuals.
20. It is in early play groups that social understanding and sensitivity are first cultivated.
21. Cultural values to which we often pay only passing notice exert a powerful force upon behavior patterns.
22. Cultures are changed by changing the value systems—the philosophies—of individuals in large numbers.
23. Socially derived motivations are learned and represent the kind of behavior approved and admired by the majority in a given culture.
24. The most important factor in the development of personality is the presence of other personalities.

25. Patterns of acceptable behavior vary from culture to culture and produce personality differences.

26. The need for companionship, affection, status, and prestige requires certain environmental conditions for satisfaction.

27. Philosophical principles are based on insight, understanding, and experience.

28. Principles based on scientifically established facts do not change while principles based on concepts of philosophy are subject to change.

29. Physical education as motor activity is never merely exercise, it is also a social and emotional experience.

30. A coach's philosophy is evident in his speech, attitude, and example.

31. Values are learned through experience.

### *Recognizing the Operation of Certain Principles*

In the following situational statements, see if you can recognize and state certain principles which might be operating in each statement:

1. America's political equilibrium under democracy has been attained largely because of individual freedom and citizens' having learned to cooperate very early in team work at play and work.

2. "Make every pupil superior in *something* and teach him to cooperate for the common good," said the baseball coach as he tried to exemplify the philosophy of his school.

3. In school X, athletic policies are not handed down ready-made by the athletic director, but are the result of careful consideration by members of an athletic council composed of representatives of students, teachers, and parents.

4. Our philosophy of physical education aids us in incorporating into or rejecting certain judgments and values from our value system. We look to science—the conclusion of research—to find the best means of achieving our desired goals.

5. Contemporary American society tends to make monetary values fundamental to almost every phase of human endeavor. We often tend to value people for what they *have*. For instance, the Zuni Indians are practically oblivious to these values.

6. Joe was an intellectually gifted boy but was raised in an environment which provided no stimulation to the full development of his potentialities. He became a clever delinquent.

7. Pupils who were motivated to develop a feeling of self-confidence and worthiness by their teachers through persuasion, conciliation, reason, and tolerance turn out differently from those who have had domineering and autocratic teachers.

8. We live in an interdependent society. Man's needs and interests, such as survival, security, friendship, and affection, cannot be satisfied in isolation. Personality evolves in the group.

## ORIENTATION READING

- Brubacher, John Seiler, *Eclectic Philosophy of Education: A Book of Readings*, 2nd ed. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. A valuable source book which enables the reader to draw his own educational implications after making comparisons from several sources.
- , *Modern Philosophies of Education*, 3rd ed. New York: McGraw-Hill Book Company, 1962. Discusses the types of education and the various philosophical sources from which they sprang. Enables one to analyze educational concepts and compare varying points of view.
- Butler, J. Donald, *Four Philosophies and Their Practice in Education and Religion*, rev. ed. New York: Harper & Row, Publishers, 1951. Groups philosophies of education under three headings: idealism, realism, and pragmatism compared. Naturalism is also listed in his treatment of the subject.
- Coulter, Charles W., and Richard S. Rimanoczy, *A Layman's Guide to Educational Theory*. New York: D. Van Nostrand Company, Inc., 1955. Actually an outline of philosophical ideas which have affected life and education from the early Greeks to John Dewey.
- Davis, Elwood Craig, *The Philosophic Process in Physical Education*, Philadelphia: Lea & Febiger, 1961. Discusses philosophy as a heritage and its contributions to physical education and the need for people in the profession to build a personal philosophy for action.
- Gruber, Frederick C., *Foundations for a Philosophy of Education*, New York: Thomas Y. Crowell Company, 1961. Encourages the reader to examine and to make comparisons of varying points of view, thereby building a philosophy of education for himself after examining the main currents of educational thought.
- Kilpatrick, William H., *Philosophy of Education*. New York: The Macmillan Company, 1951. Pragmatism—the theory that the test of truth is how it works—applied to education.
- Mason, Robert E., *Educational Ideals in American Society*, Boston: Allyn and Bacon, Inc., 1960. Analyzes the philosophy and history of education in the U.S.A. as the social basis for education in American culture today. Some of the fundamental questions are: what are the most important things to teach? who should choose the content? what criteria of choice are appropriate?
- Modern Philosophies and Education*, *The Fifty-fourth Yearbook of the National Society for the Study of Education, Part I*, ed. Nelson B. Henry, Chicago: University of Chicago Press, 1955. Nine distinguished contemporary philosophers discuss their present approaches to educational theory.

# 2

## PHYSICAL EDUCATION AS SCIENCE

No program can be recognized as good until the principles upon which it is based are known.

DELBERT OBERTUEFFER

TEACHING CAN BECOME A SCIENTIFIC TECHNOLOGY OR AN ART FOUNDED on principles, only if we determine exactly what these are and verify their validity. In this chapter we make a beginning search for a coherent body of principles from some of the various sources from which physical education draws its principles. The purpose of this is to try to avoid disregard of scientific methods and mere observation—to avoid educational quackery by eliminating bias of the personal equation; i.e., we seek the sources of principles for a scientific foundation upon which to build a valid theory of physical education.

We know considerable about man, his culture and his behavior, and about human growth and development. We have important principles which, if applied, could provide superb programs of physical education. Applied science makes possible increased intelligent control and understanding; a steady and cumulative growth of power of direction and insight into problems. Science determines means but philosophy determines ends. Science never tells a man how he should act; it merely indicates how he must act if he wants to achieve certain objectives. Science provides the intellectual tools for our use. How we use them will depend upon our respective philosophies.

Physical education cannot be an independent science. As previously indicated, it is a field of learning which is eclectic. It draws its



principles selectively from many scientific disciplines, for what is known about human beings is scattered through these many separate disciplines. Our effort here is to examine a few of these principles and other generalizations, and to focus our attention on their relationships to physical education which then becomes, in a sense, an *interdisciplinary* science—and integration of principles from a number of disciplines.

The method, not the content, defines the body of knowledge as a science. Thus we proceed to inventory some of our chief sources of principles.

### *The Sources of Scientific Principles*

#### HUMAN BIOLOGY

Man is held by the scientific world to be a part of the order of nature, a member of the animal kingdom, becoming what he is by a long process of adaptation and survival. Although the fundamental life processes are the same in all organisms, man as an animal is wholly different from other animals. Since pupils are, first of all, living creatures, we are interested in some principles which come out of the studies of organic evolution. Applications of the principles to physical education should be made by the reader who should in each case ask: "If this is a valid principle, or other type of generalization, what implications does it have for me as a teacher?"

1. We must provide for the human organism an adequate environment and experiences which encourage the most complete realization of its potentialities.
2. The whole of man is involved in all behavior.
3. Every animal comes into the world with a certain endowment of an unlearned (congenital) core of behavior.
4. All living things meet their needs through processes of adaptive behavior.
5. Those organisms which cannot adjust themselves to their environment lose out in the struggle for existence.
6. "The recognition of man's organismic unity and environmental dependence has required that physical education be, in fact, an education through the physical." (Jesse Feiring Williams)
7. Physical education should help meet the biological needs of youth by stimulating all of the vital activities of which life itself is a function.
8. Development is the expression of heredity in a favorable environment.

9. Physical education should recognize sex differences in selecting activities according to stage of development in each sex.
10. Physical activity in the presence of good nutrition is a basic factor in full physical development.
11. Physical growth and development follow a basic genetic plan set up at conception.
12. The genetic plan sets up the time schedules for arriving at and leaving the various stages along the pathway to physical maturity.
13. Some children will develop physically much more rapidly than others, some much more slowly. Some are early developers, others are late developers.
14. Maturation is the orderly development of specific growth and response patterns out of the innate genetic pattern.
15. The degree of ossification of bones indicates anatomical age.
16. The amount of oxygen taken into the body of organism and absorbed by the cells is directly proportional to the amount of energy released in the body.
17. All communicable diseases are caused by micro-organisms.

## PHYSIOLOGY

Principles of physiology help us to understand organismic functioning and the relations of function and structure. Not only does ignorance of bodily functions promote disease and impair life, but indifference about personal growth and development also actually imperils the nation. Surely, the physical educator should understand the mechanisms of his own body, the one object most familiar to him!

Physiology is the study of function of the body. We shall here pay more heed to principles of physiology in bodies with some energy demands made upon them—the physiology of activity.

1. Man, because of his highly developed nervous system, has been enabled to dominate his environment.
2. The same stimulus which reflexly activates a muscle, paralyzes its antagonist, i.e., antagonistic muscles are reciprocally innervated.
3. Muscles become bigger as the number of cells become greater and as the cells increase in size with exercise. Muscles weaken with disuse. Function makes structure!
4. In sedentary existence, or where only a few sports are used, certain body muscles may not develop sufficiently.

5. The function of the digestive system is to take food and render it soluble, diffusible, and absorbable; to allow the body to pick out those constituents it needs for reconstruction and fuel; and to reject those things which are useless and dangerous.
6. Any attempt to restrict our diet without a knowledge of the nature and properties of foods is attended with danger.
7. Regular and progressive exercise is the essential feature of training, and in the healthy man the development of his heart corresponds to that of his muscular system.
8. The main cause of the movement of blood from artery to capillary, and then to vein is the pressure gradient in which activity plays an important part.
9. The function of respiration is to bring the oxygen of the air into intimate contact with the blood of the body so that oxygen may be carried to the tissues.
10. As food is burned in the body cells, it furnishes power to move; the faster we move, the more fuel is used.
11. The normal heart and circulatory system become stronger and more efficient in moving blood to active areas when repeatedly required to do so.
12. The rise in temperature during physical activity increases the metabolic rate of the body and adds to the effectiveness of the circulatory and respiratory adjustments occurring during exercise. Hence, it promotes the more efficient carrying out of muscular work.
13. Precluding accidents, a normal healthy child cannot do himself permanent organic injury by physical exertion.
14. Persons out of training should not compete in a sport with persons who have been training in that particular sport.

## MENTAL HYGIENE

Hygiene is the science of prevention. Mental hygiene refers to all activities and techniques which work toward prevention of mental ill health. It is concerned primarily with the education of the emotions and with the development of well-adjusted personalities by the intelligent training of children and the wise educational management of situations in which they are placed.

Maladjusted school children are the result of a serious disharmony between the needs which they feel vital to themselves and the experiences of life as they meet them. Formal classroom education has never really come to grips with the problem of meeting the needs of developing personalities. Of all areas of education, physical education should

be least guilty of this charge. It has ample opportunity to encourage expression through motor activity, the achievement of group status and recognition and adventure. Physical education also encourages expression through friendships by enriching and expanding the play experiences of pupils, by aiding them in the realization of worthy behavior goals, and by stimulating them to evolve new value concepts.

The feelings of confidence and strength and the habits of friendliness and cooperation cannot be developed by merely talking about them in the classroom. We must use the playground, gymnasium, pool, and athletic field as mental health laboratories. We must satisfy the emotional as well as the physical needs of pupils by strengthening their feeling of security and increasing their stability and social effectiveness by putting some of the following principles, actual or implied, into operation:

1. Childhood is the period of adaption of basic skills and the socialization of the personality.
2. Feeling secure and that one amounts to something are fundamental emotional needs for everyone.
3. A neurosis is the result of the failure of the ego to receive adequate need-satisfaction.
4. Worry and other emotional disturbances such as fear, anger, and disappointment use up energy that might have been used in building up the body.
5. The body acts as a unit. Emotions such as rage, love, grief, and fear do change one physically as well as mentally and emotionally.
6. Mental health is greatly dependent on the physical well-being of the body. Efficient functioning of the body is related directly to food and oxygen supply, humidity and temperature regulation, rest and sleep provisions, physical activity and the removal of fatigue and toxic poisons.
7. Play is a mechanism of individual adjustment and of satisfying personality needs (psychic hungers). It is at the root of mental hygiene for it provides a wholesome release of pent-up emotions.
8. We develop a feeling of security in children when we make them more adequate by means of strength, skill, endurance, and intellectual achievement.
9. Delinquency results from a delinquent environment—one which is deficient in conditions and opportunities that would satisfy the basic personality needs of youth in socially acceptable ways.

10. The function of guidance is to help pupils recognize their problems and plan ways of solving them.
11. Play and athletics, as nature's safety valves, are means of emotional catharsis because they permit us to relive our more primitive experiences.
12. A concept of the self as adequate and of worth is of extreme importance to mental health.
13. Inactivity breeds fear and anxieties; muscular activity overcomes them.
14. A rich play-life in childhood builds a solid basis for emotional health.
15. In physical education, the child's activities should be directed to provide not only interest but adaption to his or her abilities so that success will be experienced.
16. Play provides the outstanding means of controlling, sublimating, and substituting for physical and social inadequacies in a wholesome manner.
17. Success breeds confidence in meeting life. Repeated failure robs children of their feeling of self-reliance and self-confidence. Degree of difficulty in activities should provide a better than 50-50 chance for success.
18. The crippled or handicapped child needs help in understanding and functioning with his handicap in a wholesome way more than he needs sympathy.

### PSYCHOLOGY OF LEARNING

To learn is to become different, for learning is the process of changing behavior through experience. Learning and achievement on the part of pupils in physical education begins with a sense of something lacking, a disturbed feeling, a dissatisfaction which results in activity and accomplishment in a certain direction. There are many active needs which may cause this search for a solution.<sup>1</sup>

Since functional learning is learning that meets the needs of a specific individual in a specific situation, motivational aspects of need-satisfaction and purpose are highly important to effective learning results. Among others, the following principles are important for effective learning:

1. Learning is always related to something. One does not learn in a vacuum. He learns those things significant to *him*.

<sup>1</sup> See Chapter 6, "The Nature and Needs of Human Beings."

2. We motivate learning by inducing motives; making learning purposeful and meaningful.
3. The rate of learning is directly associated with the appropriateness of the outcomes (rewards) to the needs of the learner.
4. Learning is a unitary, not a fragmentary process. One will never learn to play the game of *basketball* if he practices nothing but isolated skills.
5. Learning is an active, not a passive process. It involves attempts at making an adequate adjustment to the environment.
6. Maturation is basic in all learning. Learning of a particular kind occurs only when the pupil is mentally, physically, and emotionally prepared for that particular experience.
7. Learning involves the whole organism, not specific isolated parts of it.
8. Learning motor skills involves practice or provisional trials with the desired goal in mind.
9. Learning is facilitated when pupils feel emotionally secure and accepted by the group.
10. Self-confidence is important to learning.

### SOCIAL PSYCHOLOGY

Physical education cannot be divorced from the society it serves, nor can its contributions to the social functions of education be ignored, for it is a bio-social process. Through its activities, boys and girls are educated not only as individuals but as members of a social group, be it a class, a team, a school, a state or a nation.

The interdisciplinary approach among sociology, psychology, and anthropology has resulted in breaking down the separating walls and the fusion is referred to as the "behavior" sciences. Social psychology is itself the fusion of these three behavior sciences which studies behavior as it develops in the human group. It is the study of the way in which the individual becomes a member of and functions in a social group and the mutual interplay and cross influence of the individual and the social group. The major problem of the physical educator as a social psychologist, then, is the discovery of conditions and experiences which when altered will change the social behavior of people in the desired direction.

We socialize our pupils when they learn the ways of the group, become functioning members of it, act according to its standards, accept its rules, and in turn become accepted by the group. Even animals that have been removed from their mothers at birth and raised apart from others of their kind, do not know how to behave

toward like animals when placed among them. Physical education becomes social when it induces people to work together for a common end, aids mutual understanding, establishes rights and duties and gives the individual a sense of group membership and the group a sense of unity.

Our interest is in the development of the social phases of personality, attitudes and values by means of games, sports and related activities—broadly speaking, in the socialization of the individual in groups.

1. In America, sports provide a strong common denominator for such powerful socially integrating factors as common interests, common loyalties, and common enthusiasms.
2. Social interaction is the condition and end product of group living and therefore a function of physical education and athletics.
3. If behavior is predictable at all, it is predictable only when we know both the tensions which impel a person to action and the cultural situation in which the tensions operate.
4. Groups are universal aspects of human life. Each person needs group participation because he has grown up in groups and has thus acquired wants, most of which can only be satisfied directly or indirectly by other people.
5. There is nothing necessarily inherent in the fact that two or more races which are in contact need be in conflict also.
6. "In directing activities of the young, society determines its own future in determining that of youth." (John Dewey)
7. The social environment of the gymnasium or playing field is truly socially educative in its effect to the degree in which the individual shares or participates in some conjoint activity.
8. Desirable social attitudes are developed in situations which call them forth.
9. Man's behavior is social in the degree that it is governed by consideration of others, when he deals with others as human beings and not as tools or obstacles to his own ends.
10. Since human progress lies in the direction of cooperative evolution, we should avoid competition as a mental set or a philosophy and principle of life.
11. Subsidized school athletic teams run the danger of perpetuating and encouraging competitive values to the point where they will become detrimental to the individual development of the athlete and to his collective educational efficiency and his community of purpose.

12. In an athletic game, two teams unite as one society in order to play, and without both competition and cooperation we would have no game.
13. The acuteness of the problem of competition may be tested by earnestly seeking an answer to the question: "To what extent are the threads of fellowship and kin-sympathy in danger of being broken?"
14. Both competition and cooperation are needed for the fullest development of the individual and the final best interests of the group.
15. Through conflict with others, one learns to respect the rights of others; through group conflicts, one finds his place in the group and the opportunity to test his worthiness as a leader or intelligent follower.
16. Just as conflict and competition seem inherent in the nature of youth gangs, so also does cooperation, thus giving the teacher some basis for constructive development of his pupils through group activity.
17. Socialization, so well observed on the playground, begins as a process of *learning* in infancy and early childhood and continues through the life of the individual.

### CULTURAL ANTHROPOLOGY

Man is a biological animal and is immersed in a culture which he absorbs and personalizes. His personality is a product of heredity and culture. Culture is as culture does. It has been said that "we *are* our culture." Culture consists of the behavior that individuals develop as a result of living in a particular group. It is, in a sense, our social inheritance which includes material things like television, automobiles, airplanes, and lipstick as well as art, morals, and law. Our culture is our plan and design of living, the accumulation of thoughts and ideas and ways of doing things which we have *learned*.

Cultural anthropology as a relatively new discipline studies the individual in relation to his environment and seeks to discover the extent to which the forces of the environment—the patterns of culture—become an integral part of the personality.

As individuals, we can participate more effectively in society if we understand the crucial issues before it and the relation of these to our "patterns of culture." What terrific mistakes were made in the past in colonial administration simply because administrators were ignorant of the culture of the people they were trying to administer! Administrators of the newly developed U.S. Peace Corps learned very



early the importance of orientation in the cultural anthropology of the various nationals to be served.

Culture is the cement which holds people together by common ideas, customs, traditions, and standards. In America, games and sports furnish a strong, common cultural interest, representing an integrating force, vital and important to the American way of life—our culture. This is, of course, true in many other countries.

The function of education is to *improve* the culture. How can the cultural environment of the playground, the gymnasium, and the athletic field, and the emotional climate therein be directed with a system of social values more conducive to the development of a more confident and forceful people who will be more serene and cooperative, more enterprising and self-reliant? Cultures are changed by changing the value systems—the philosophies—of large enough segments of individuals to swing the culture in a new direction. The school performs an important social function as an agency for identifying and transmitting values.

What would happen to our culture if every playground leader, every physical education teacher, every athletic coach and every recreation director could agree on the basic values related to a higher cultural level in American life and *teach* them? The values of our culture are strong causes, forces, and powers in our lives. It is by values that we live, and the culture expresses the basic values of our society.

The Russians have been the first modern people to practice the political direction of culture consciously and to attack at every point the culture of any people whom they wish to dominate. Let us not copy the Russians. But is it not true that when society as a whole has rather clear-cut and dominant values, more harmonious behavior of individuals seems to result and groups and institutions therein seem better integrated? To bring this about by democratic methods is the major task of our social and educational life in the United States of America.

What bearing might the following principles and generalizations have upon physical education and its curriculum?:

1. Good social thinking is not possible without some knowledge of cultural forms or patterns.
2. Culture expresses the basic values of a society.
3. Culture conflicts arise when values to which people give their allegiance are not increasingly manifested by what they do (i.e., our religion teaches us, "Thou shalt not Kill" and we live on the brink of war).

4. Internal conflicts and inconsistencies in our culture make for internal conflict and inconsistency in the individual (i.e., we extol the virtues of cooperation and sportsmanship on one hand and cut ethical corners in order to be considered a success and to win).
5. Sick societies make sick individuals.
6. Behaviors are learned from the cultural systems under which people live.
7. The more we know about the nature of social structure and cultural environment, the more intelligent should be our approach to social and therefore to educational problems.
8. The problems exhibited by many young Americans in their transition from adolescence to adulthood are largely the result of growing up in our American culture as background.
9. The American businessman approaches business with much of the zest with which he approaches games.
10. Play and the culture of a people are interwoven (i.e., "If you want to know a man play a game with him!").
11. Culture is not biologically transmitted. Proved values in physical education must be safeguarded by social organization and passed on by social inheritance. No item in man's social organization, the *quality* of his play behavior, his language or his religion is in the germ cell.
12. Culture patterns fall apart when there is inconsistency and conflicts in the value system.
13. Culture lays out for people the ways in which biological drives (i.e., hunger, sex, activity, etc.) are socialized.
14. A highly competitive and relatively insecure society tends to make people competitive and relatively insecure.
15. Since the culture assimilated by the individual in the gymnasium and on the athletic field becomes a vital part of his personality, it is correct to speak of the "culture of the individual."
16. The cultural environment into which we are born plays a tremendous role in molding our physiques, attitudes, habits, and personalities, due to current social values and meanings the group places upon them.

### PHILOSOPHY AND SCIENCE ARE COMPLEMENTARY

Philosophy and science are not competitive; they complement one another. Outright superiority cannot be granted to either. Each is

superior in accomplishing its own objectives. Educational philosophy is concerned with the whole of human personality and totality of experience and with critical examination, integration, interpretation and evaluation of the facts uncovered by science. Philosophy, of course, wants to know, not only whether the facts are true, but also whether they are right and just and what their relationships are to purpose and value. The chief tool employed by the philosopher is logic.

Science checks and tests philosophy. Science provides us with knowledge—the intellectual tools for solving problems. How we use the tools will depend on our respective philosophies. Science gives us facts; philosophy gives us perspective and valuation—wisdom. Science enables us to construct means; philosophy enables us to coordinate ends by organizing a system of value judgments, basic beliefs, and ideals by which we criticize and clarify our educational aims and purposes.

Philosophy emphasizes these aims and purposes while science stresses results and achievement. Philosophy suggests *what* to teach; science tells us *how* to teach. Philosophy proposes theories and hypotheses while science puts these to rigid tests for verification. Philosophy reaches conclusions by synthetic (building-up as opposed to analytic) interpretation through the process of reasoning while science merely states the results of experimentation. Brubacher states the case well when he says, "while philosophy must be the general to plan the grand strategy of education, it will need science as its staff officer. Science may well do fact-finding on selected aspects of value, but it must refrain from exercising the prerogative of legislating which value should control a given situation."<sup>2</sup>

It might be well in closing this statement to remind the teacher of his function in contrast to those in professions who are more often preoccupied with science. The engineer and metallurgist seek to make changes in the wearing quality of alloys and metals; the researcher in engineering mechanics tries to devise new machines; the agricultural scientist seeks to improve the soil and conserve it; the chemist seeks to discover new synthetic products or more destructive explosives. As a humanistic philosopher, the physical education teacher, however, examines critically the assumptions on which his department is based and tries to interpret and evaluate them. Like every good teacher, he seeks to bring out better and richer and more essential qualities in human beings.

<sup>2</sup> John S. Brubacher, *Modern Philosophies of Education* (New York: McGraw-Hill Book Company, 1962), p. 87.

## SUMMARY

The teaching of physical education can become an art, founded on principles, only if the base tenets are determined and verified. Since these principles are taken from a number of disciplines, it is important to examine and to understand principles extracted from these various disciplines.

From Human Biology, we take a great many principles which come out of the studies of organic evolution. These deal with such matters as total development, maturation, the "genetic plan" of the individual, sex differences, the original endowment of an "unlearned core of behavior," and adaptive behavior in meeting biological needs. Principles related to these and other biological facts are of primary concern to the physical education teacher.

From Physiology, which is the study of function of the body, we derive principles of understandable and great import to programs in physical education. Facts about such things as diet, circulation, respiration, muscle development, and energy are of necessary concern to any teacher of physical education as they provide the base for "physiology of activity."

Mental Hygiene refers to all the activities and techniques which work toward avoidance of mental ill health. Physical education must build programs with the inclusion of principles from this area of concern. Facts related to personality development through activity, avoidance of frustration and insecurity, emotions and physical responses, self-confidence, and emotional catharsis are basic to principles which physical education teachers must understand in order to deal with the total being.

Principles of learning, as derived from the psychology of learning, are obviously guides which are necessary to any teaching program. A physical education teacher must know and build upon those facts dealing with motivation, satisfaction, the active nature of learning, practice, trial and error, and a whole range of matters which an individual experiences as learning takes place. When applied to physical activity, the principles derived from these facts are a necessary part of planning for physical education programs.

Social psychology is a fusion of three behavior sciences—sociology, psychology, and anthropology. The conclusions, or judgments, drawn from these sources and applied to physical activity are a part of the large body of principles of physical education. Understanding these principles, along with those which are taken from the other sciences, is absolutely essential to the well-informed teacher of physical education. The integrating power of sports and games, the social and psychological significance of group participation, the parallelism of cooperation and competition, the rights of the individual in the group, the influence of cultural patterns, and methods of transmittal of cultural patterns are a few of the many basic understandings necessary in this area.

Thus, the body of principles which guide programming in physical education make for reliance on a variety of sciences. Philosophy and science

complement each other, as science determines means and philosophy determines ends. The philosophy of physical education is derived from this cooperative enterprise between philosophy of the various disciplines and science which checks and tests such philosophy. So, physical education may be called an "interdisciplinary" science.

## THOUGHT PROVOKERS

Numerous principles have been listed from the various sources from which physical education draws its principles. It is suggested that the reader examine these in order and give an illustration of the operation of each principle. Ask yourself as a physical education teacher, "If I accept this generalization as a valid principle, what would I actually *do* if I desired to apply it functionally in dealing with children and youth?"

A few additional principles related to the content of the chapter are added. Use the same application technique on these.

1. Reflective thinking is essential in problem solving.
2. The function of scientific research in physical education is to predict and control and not merely to describe.
3. The purpose of any science is to obtain sound generalizations which will provide a basis for modifying the old or building the new.
4. The best data comes from controlled experiments.
5. Only data relevant to the problem aids in the solution of the problem.
6. We reason with data in the solution of problems.
7. The ability to recognize a problem before it becomes one is as important as solving the problem.
8. The most effective learning results from organization of experience around problems.
9. We shall be able to control conditions like "health" or "physical fitness" only to the extent to which we have control over the variables of which these conditions are a function.
10. Science deals with the truth, not its implications.

### *Recognizing the Operation of Principles*

What principle or principles are operating in the following situation statements?

1. Until the end of the 18th century, the insane were thought to be possessed of devils. They were savagely beaten so that the devils would suffer and decide to abandon the patient. Very few cures resulted.
2. The physical education teacher did not employ the technique of "bawling out" the student who seemed to lack energy and showed little interest but tried to get at the real cause of the symptoms in order to help him.
3. In searching for the cause of yellow fever, healthy volunteers, using the bedding of diseased patients, did not become ill. They then permitted

themselves to be bitten by mosquitoes which had previously bitten yellow fever victims and contracted the disease.

4. Young children play and get sensory pleasure (called "function pleasure") out of using their muscles and testing their budding capabilities. They find long periods of inactivity unbearable.

5. Many competitive businessmen and college football coaches develop stomach ulcers, whereas in non-literate or primitive societies this disease is very uncommon.

6. We blush with embarrassment, get pale with fear, perspire under tension, get generous with pity, cooperate in love, and strive hard for the esteem of those for whom we have regard.

7. Helen Keller, although blind and deaf, became a well-educated person. However, with the progressive loss of each sense, education becomes more difficult for most people.

8. In team play and other types of social interaction, the relationship between two or more persons results in the modification of behavior on the part of each individual. Each individual in the group anticipates and adjusts himself to the acts of the other.

9. English children learn to eat with both the knife and fork retained in the hands while eating. Americans play baseball, Englishmen play cricket. Greeks dislike canned foods; we thrive on them.

## ORIENTATION READING

Ambrose, Edna and Alice Miel, *Children's Social Learning*, Washington: Association for Supervision and Curriculum Development, National Education Association, 1958. Excellent analysis of the implications of research and expert study of the process through which children acquire social learnings.

American Association for Health, Physical Education and Recreation, *Research Quarterly* Vol. 31, No. 2, (Part II) (May 1960). 75th Anniversary special issue entitled "The Contribution of Physical Activity to the Human Well-Being." Cites numerous research findings concerning physical health, social development, psychological development, growth, skill learning, and rehabilitation related to physical activity.

Breckenridge, Marian E. and E. Lee Vincent, *Child Development*. Philadelphia: W. B. Saunders Company, 1955. Brings together some current findings and viewpoints in the research field of child development with excellent treatment of physical growth and use of the body from infancy through adolescence.

Cannon, Walter B., *The Wisdom of the Body*, rev. ed., New York: W. W. Norton, 1939. One of the earlier semi-popular physiology "classics" still of great value to all who would understand the wonders of integration within the human organism.

Cowell, Charles C., "Recent Research in Cultural Anthropology," in *Professional Contributions Number 1*, The American Academy of Physical

Education, Washington: The American Association for Health, Physical Education and Recreation, (November 1951), 51. Summarizes some effects of changes in social and cultural patterns upon the personality and values of individuals and society with implications for physical education.

Cozens, Frederick W. and Florence S. Stumpf, *Sports in American Life*, Chicago. University of Chicago Press, 1953. Discusses the contribution of sports to our national culture and to their role as an integrating force resulting from common cultural interest.

Honigmann, John J., *Culture and Personality*, New York: Harper & Row, Publishers, 1954.

Johnson, Warren R., ed., *Science and Medicine of Exercise and Sports*, New York: Harper & Row, Publishers, 1960. An excellent symposium by outstanding scientists utilizing research in exercise and sports to contribute to the knowledge of human performance and behavior by experimentation in the areas of the physical, social, cultural, and psychological in sports. Chapter 21 by Brouha deals with physiological responses altered by training. Chapter 22 by Anna Espenshade tracks the course of development of motor behavior from childhood to maturity.

Krogman, Wilton M., "Factors in Physical Growth of Children as They May Apply to Physical Education," in *American Academy of Physical Education, Professional Contributions No. 3*, Washington, D.C., AAHPER, September, 1954, pp. 129-30. An excellent presentation of patterns of child growth and development as bio-social phenomena.

Montagu, Ashley, *The Direction of Human Development, Biological and Social Bases*. New York: Harper & Row, Publishers, 1955. A major contribution to understanding ourselves and others.

Riedman, Sarah R., *The Physiology of Work and Play*. New York: The Dryden Press, 1950. A well-organized text for undergraduates. Stresses the interdependence of bodily systems, physiological adaptations during work and lasting bodily changes resulting from different levels of performance. Well illustrated by diagrams.

Shaw, J. H., "The Operation of a Value System in Physical Education," *The Physical Educator*, December, 1956, pp. 132-134. Suggests techniques for realization of the democratic ideal in physical education.

Tyler, John Mason, *Growth and Education*, Boston: Houghton Mifflin Company, 1907. One of the early classics by a noted professor of biology who long ago saw clearly the biological needs of the organism and how proper physical education can meet them.

Zubek, John P. and P. A. Solberg, *Human Development*, New York: McGraw-Hill Book Company, 1954. Surveys genetically the extensive developmental physical and psychological changes that occur in humans from conception to old age. General orientation of the book is physiological.

# 3

## PHYSICAL EDUCATION AS ART

*Art is the beautiful way of doing things.*

WILLIAM CARL REUDIGER

THE WORD ART IS ONE OF THE MOST DIFFICULT TO USE IN ANY EXACT sense. The epigram given above refers not merely to "a method of doing," but of doing something beautifully. Language is a communication art. We also speak of the art of the physician or the teacher, or of the art of diving, hurdling, playing basketball or swimming. People who do these things "beautifully" may be called *artists*, i.e., they do them in the spirit of delight, with interest in the process as well as the product, and with a keen aesthetic attitude throughout. They strive for excellence. There is no type of effort that may not attain to the level of artistry.

Art refers not only to the skill, dexterity, and power of performing certain actions, but implies that actions are performed with such aesthetic qualities and principles of taste and imagination that they express beauty to those of us who interpret it. The aesthetic quality of a beautiful sunset, a lyric poem, a great musical composition, a lyrical lilted waltz, a perfected gymnastic exercise, or a pole vault, excites an organic response in us. This emotional response is the result of perception gained through knowledge and the various senses such as hearing, seeing, feeling (touch), and those sensory end organs which guide the body in its movements (proprioceptors). They excite within us admiration and delight not because the object or experience has utility or sale value but because of their humanistic values—our ap-



preciation of what they *do* to us. We value and *appreciate* such experiences because of their enhanced aesthetic appeal resulting in and from various modes of expression.

A new movement in art is called the New Image and stresses action or kinaesthetic imagery. It is by our experience with body tensions in muscles and joints in movement via the kinaesthetic sense that we not only perceive movement, weight, resistance, and position in our own bodies but become sensitive through empathy<sup>1</sup> to the aesthetic expression of the physical movements of others. A clumsy effort, when observed, makes us feel quite different from the observation of a graceful coordinated movement. Likewise the "fiddler" makes us feel different by comparison to hearing a concert violinist. In music, our auditory perception is involved; in athletics our kinaesthetic perception is involved. We admit getting an aesthetic thrill out of beautiful performances in both fields.

Bernard Arnest claims,

Games are art forms and the more athletic games are forms of kinaesthetic art. Neither art nor sport, in their purer forms, exist for any reason other than the experiencing of them. We indulge in sport for the sake of sport, for the sensations we receive from the indulging. We can imagine man, in an unsophisticated state, running races and wrestling out of sheer kinaesthetic drive, and for the satisfaction that comes from using an instrument, his body, that was meant to be used.

Sport is a performing art and once done ceases to exist. We imagine a great portion of mankind as insensitive to aesthetic expression because it is not sensitive to the fine arts, yet it has the great domain of kinaesthetic arts called sports.<sup>2</sup>

#### PHILOSOPHY APPLIED: THE PRACTICE OF PHYSICAL EDUCATION

Here we shall discuss briefly art as "a method of doing." When we refer to the distinguishing characteristics of a physical education teacher who is an "artist" we mean those fine methods, ideas, and principles which are responsible for his artistic performance as a teacher.

Dewey has said that "to teach is to cause to learn" and that unless pupils have learned, no teaching has taken place. Therefore, instruction is the stimulation, direction, and guidance of pupils by so organiz-

<sup>1</sup> Attributing to a performance or work of art the feelings aroused in one by the performance actual or depicted in art.

<sup>2</sup> Quoted by permission of Bernard Arnest from an unpublished paper presented at the University of Oklahoma, January 1962.

ing their environment and experiences that the most effective learning results. To do this well demands a master artist-teacher.

In facing situations in everyday living, pupils need to develop competencies and capacities to maintain good health, to solve problems by reflective thinking, to make moral choices, to express themselves emotionally by wholesome ideals, tastes, attitudes, and appreciations. They have to deal with other persons individually in face-to-face relations and through social participation in groups. Finally, social development is enhanced by intergroup relations as exemplified by intramural and interscholastic sports and play days. Surely this is a task of none other than a teacher who is an "artist" when it comes to organizing learning experiences and who practices the "art" of teaching.<sup>3</sup>

Read says:

Education is the fostering of growth, but apart from physical maturation, growth is only made apparent in expression—audible or visible signs and symbols. Education may therefore be defined as the cultivation of modes of expression—it is teaching children and adults how to make sounds, images, movements, tools, and utensils. A man who can make such things well is an educated man. If he can make good sounds, he is a good speaker, a good musician, a good poet; if he can make good images, he is a good painter or sculptor, if good movements, a good dancer or labourer, if good tools or utensils, a good craftsman. All faculties, of thought, logic, memory, sensibility and intellect, are involved in such processes, and no aspect of education is excluded in such processes. And they are all processes which involve art, for art is nothing but good making of sounds, images, movements, and the like. The aim of education is therefore the creation of artists—of people efficient in the various modes of expression.<sup>4</sup>

From the above statement it may be seen that aesthetic education has several distinct aspects according to the senses chiefly involved. We have visual education (eyes), plastic education (touch), music education (ear), verbal education (speech) and physical education (muscles). Read suggests the term "kinetic education" where we would use "physical education." Kinetic (or physical) education makes wide use of the kinaesthetic or "muscle sense" which gives us the sense of movement and position of our body parts in space. It is this combination of joint and muscle sense which insures the fine distinctions and coordinations of the master artist, surgeon, gymnast, juggler, skater,

<sup>3</sup> Discussed in some detail in Chapter 8.

<sup>4</sup> Herbert Read, *Education Through Art* (New York: Pantheon Books, 1945), p. 11.

dancer, and athlete. They inherit and cultivate a fine perception of movement (of muscular control) and achieve their triumphs chiefly through its aid.

Since physical education aims to create people who are artists—who are efficient in expression through movement, women leaders in physical education are encouraging the use of the term, “the movement arts,” since movement is the chief mode of expression employed by us.<sup>5</sup> This is somewhat open to question since each art has some functional affinity with every other to a degree. Music (ears) and dance (muscles) have functional affinity as exemplified in eurhythmics. We must also note that closely related to this sense of movement is the sense of balance; one part of the internal ear is devoted not to hearing but to appreciation of the position of the head in space and of the extent of any movements it is making.

In physical education, the body, as a symbol of the self, is an instrument of expression. While painting, drawing, architecture, and sculpture are often referred to as the “arts of design,” they are also classified as “fine arts.” A wider classification includes poetry, music, dancing, and the theater or dramatic arts.

While clay, stone, and sounds, become the media of expression for some forms of art, the human body becomes the medium for physical education. If we think of a fine art as one concerned with the creation of objects of imagination and taste for their own sake and without relation to the utility of the object produced, we can see that the modern creative or contemporary dance is considered an art form. It is a vigorous physical activity in which the dancer endeavors to communicate his own experiences and reactions through the medium of movement. The body is used as an instrument of expression; no set vocabulary of movements has to be learned because movements are invented to fit specific ideas.

Modern dance is creative rather than imitative. Its skills are based on natural movements which may be varied and combined to tell a story, evoke a mood or emotion, or depict fantasies or abstract design. It involves both form and imagination.

Although few would agree to include diving, hurdling, gymnastics, and baseball or basketball among the fine arts, certainly some elements that distinguish the fine arts are evident and possible in these activities. They are arts in the sense that they demand a systematic application of knowledge and skill in effecting desired results, but they also call for imagination and creativity.

<sup>5</sup> Rosalind Cassidy, *Curriculum Development in Physical Education* (New York: Harper & Row, Publishers, 1954), p. 129.

Up to this point nothing has been said of physical beauty, yet in the Golden Age of Greece preference for the aesthetic is nowhere more evident than in matters pertaining to physical beauty fostered by games and sports. Artistic appreciation of the excellent physique in the Greek art of the sturdy, sun-tanned bodies of Greek athletes is preserved in sculpture and design. Emphasis on beauty was on proportion, harmony, and moderation of the Athenian athletic ideal.<sup>6</sup>

In America today, our beauty contests, the millions spent in "health studios," and the ego-satisfaction-seeking motives behind participation in various types of physical activities are evidence that our deeply-rooted admiration for physical beauty, physical fitness, and prowess, going back no doubt to prehistoric times, still functions. These qualities still have survival value today as they have had throughout the centuries.

When we say that a student has a "beautiful body" we are admitting that certain mathematical proportions give rise to that emotion in us which we normally associate with works of art. If, in this sense, we think of an artist as one who "gives shape to something," the physical educator is indeed a potential artist.

### EMOTIONAL RESPONSIVENESS: TEACHING FOR APPRECIATION

We get at the realized meaning of any art through appreciation. Coleridge said, "We know a man is a poet by the fact that he makes us poets." Appreciation has to do with our tastes, attitudes, prejudices, standards, and ideals. By emotional responsiveness as appreciation we refer to our responses to situations that represent their emotional value to us. When pupils get emotional satisfaction and pleasure out of overcoming difficult challenges, such as learning to swim or creating a new dance pattern, or get a thrill out of cooperative success or team work through developing great loyalty to the school or team, they have learned a certain type of emotional responsiveness or appreciation. The sheer "function pleasure" resulting from zestful movement itself as in a badminton game, along with imagination and a certain degree of creativeness, leads to the appreciation of the activity. Intelligent appreciation, of course, implies insight and knowledge, as well as feeling.

The situation, to be appreciated, whether it is sportsmanship,

<sup>6</sup> Thomas Woody, *Life and Education in Early Societies* (New York: The Macmillan Company, 1949), pp. 334-338.

<sup>7</sup> Bertram Morris, *The Aesthetic Process* (Evanston, Illinois: Northwestern University, 1943), p. 69.

learning to execute a difficult dive, or mastering a defense in basketball, must be in a setting which gives it significance, vitality, and realism. Merely talking about these things leads to lifeless, perfunctory performance, with no emotional meaning.

The attitude of the teacher is another factor in the development of appreciation because the feelings of the teacher are to a large extent reflected in the pupils. A teacher with a keen sense of appreciation of skill, sportsmanship, personal neatness, and correct speech has great assets in favor of stimulating similar appreciations in the minds of his pupils. He does this, not by preaching or moralizing but by having it implicit in his personal life and in his dealings with students. Appreciation deals with emotional values rather than intellectual meanings. The old cliché, "character is caught not taught," illustrates this point very well.

In defining art, Read reminds us that two main principles are involved—a principle of *form*, and a principle of *origination*. The physical education teacher will recognize both principles as potentials for consideration in the "movement arts," since form and origination are something common to all works of art. Of *form*, he says:

This is quite a simple short word, and it has meaning familiar to everybody. If someone plays well, or runs well, we say that he or she is "in good form." And by that we mean that they do what they undertake to do as well as possible. We mean that their bodies are in good trim, that they see and hear and act quickly and efficiently. If we use the same word about singing a song or playing a violin or acting in a play, then we are already using "form" in connection with art.\*

We take the liberty of adding the dance, the high jump, diving, the hurdles, the basketball player dribbling through the defense to score a goal, the baseball game as a whole—all composed of patterned kinetic movements—as *art* in which *form* is most important. Using the word form as a verb we form fours for a square dance or we form a football team.

In this sense the word "form" means something like "shape," it means that we give shape to a number of people for a particular purpose. But we go further and say, for example, that ice "forms" over a pond, or that dewdrops "form" on the twig of a tree. Then "form" does actually mean "take shape."

And that is what "form" means in art. The form of a work of art is the shape that it has taken. It does not matter whether it is a building,

\* See Read, *Education Through Art*, p. 15.

or a statue, or a picture, a poem or a sonata—all these things have taken on a particular or "specialized" shape, and that shape is the form of the work of art.<sup>9</sup>

From this we can logically draw the inference that the shape which these various works of art take depends upon a particular artist. The best works of art are those with the best form. There are all kinds and degrees of artists. "By their works ye shall know them!"

Let us ask ourselves, how many of our pupils run, swim, vault, jump, dribble, pass, shoot, pivot, kick, or catch in "good form." How many have proportioned, strong, and beautiful bodies, representing "good forms"? The master artist teacher will be able to give a good evaluation of his "works of art."

Let us turn briefly to the matter of *origination* which is a function of imagination and creativity. This is a function distinct to the mind of man which makes him a creative animal and enables him to appreciate the creativity of others. If physical education is to have some of the attributes of art it must at times avoid sheer imitation of movement and emphasize individual differences. It must provide, through enriched curricula, for many different modes of expression through movement, realizing that there is a direct and valid relationship between modes of expression and the affective components of each individual's temperament and disposition. Research in constitutional psychology and somatotyping indicates that we tend to engage in those activities which satisfy our emotional needs, and that there are significant connections between physique and behavior, demonstrating that different body types respond differently to the forces of environment.

The enjoyment of the arts in the form of design, music, movement, poetry, drama, and crafts is a very real part of complete living. The powers of appreciation in these areas may be more satisfying for more years than many of the other things that we stress in school. Racial psychology agrees that the basis of art expression is found in interesting experiences which give tone and color to our lives, kindle our imagination, and stir our emotions long after our school days are over. We objectify the imagery of the past and get the emotional thrill again. Primitive people in similar ways celebrated in dance, pantomime, song, story, and drawing. They carved on stone the thrilling experiences of the hunt, of war, or of the festive ceremonial inauguration of a chief. In ancient Greece, the great athletic festivals originated in funeral games for particular heroes, but were later celebrated in honor of deities.

The festal element was especially prominent in primitive art. It is also an element that appeals strongly to children. Christmas, Easter,

<sup>9</sup> See Read, *Education Through Art*, p. 15.

Thanksgiving, and other "special" days provide occasion for expression in free creative activities in the various arts, including the "movement arts," and we should stress such activities in the physical education program to satisfy the natural appeal they have to children.

The emotional type of learning, such as teaching for appreciation, is most difficult to direct. One can teach motor skills and determine easily the extent to which these have been learned and discover if pupils can and will use them in their lives. This is not true of attitudes, ideals, and appreciations. We have too few principles of psychology to form the basis for the formulation of the methods of cultivating artistic expression and appreciation.

A few principles may help to relate physical education to the art concept.

1. To develop appreciation, the pupil must go through experiences that kindle his imagination and stir his emotions.
2. The pupil must then express himself in some form of creative activities to objectify these images and feelings.
3. Encouragement of individuality and originality through physical education should be begun in the child's earliest years.
4. If a reaction is truly the pupil's own response to the vivid image and the feeling that presses for release, the teacher must accept a form of expression that is, at first, crude or unartistic (e.g., a "belly-flop" dive).
5. The pupil who gets a sense of joy and achievement over what he has accomplished shows the beginning of real appreciation.
6. Growth in capacity for aesthetic expression and appreciation is as much a part of total growth as is the meeting of health needs.
7. Creativity and aesthetic satisfaction must be seen as relating to more than music and the arts—to all aspects of living—including the countless possibilities for creative expression and satisfaction in play and physical education.
8. When appreciation has adequate basis in active thrilling achievement, it can go far beyond the individual himself to produce artistic movements or products (i.e., gets a thrill out of the excellent performances of others).
9. Feeling and imagination must be cultivated as a basis of appreciation; of fundamental importance is a vital feeling of achievement of some sort.
10. Appreciation must first grow out of self-expression and creative activity.

11. Observation and imitation of movement or art products, or models, can aid growth in appreciation *only where such growth is already naturally under way.*
12. Appreciation starts with an idea that comes from *within* and from actual or reconstructed experience (i.e., seeing a women's championship Olympic Gymnastic Team perform).
13. Since emotional reaction does not occur without a stimulus associated with some personal experiences, the nature of the stimulus requires some consideration.
14. Whatever the form of appreciation or emotion to be encouraged some response driven by strong feeling originating *within* the pupil's world of ideas and ideals is essential.
15. Since appreciation is learned, and attitudes are developed solely in situations which call them forth, pupils should have ample opportunity to practice, develop, and apply the emotional learnings if they are to be part of one's living (i.e., learning appreciation of sportsmanship does not result from stopping at good intentions. Opportunities must be provided to practice, develop, and apply the emotional learnings related to sportsmanship).
16. Pupils should have an active part in formulating the correct exercise of whatever emotional attribute is desired. If pupils feel that they had some part in formulating the attributes, these will be accepted as *desirable in personal improvement* (i.e., the pupil who had some part in formulating the sportsmanship code for basketball games will try to behave accordingly, since like a stockholder he is a *participant* and not merely a reactor).

Appreciation as a type of emotional learning implies that feelings are brought into play—it touches the emotions. We face the fact that much of human conduct is governed by feeling. Intelligence and knowledge tells what we *can* do; "how we feel about things" tells what we *will* do. Appreciations, attitudes, convictions, and ideals are such important inner directional forces *in our lives and society* that physical education teachers must strive for these important attributes with renewed vigor.

## SUMMARY

Physical education, judged as an art, takes its place with countless other forms of art which are more generally recognized in that terminology. People who do things beautifully are artists, whether it is singing, painting, weaving, composing, or performing any action, including the whole gamut of activities known to make up physical education.



Art refers to skill, dexterity, and power of performing certain actions, but it also implies such aesthetic qualities as will express beauty to those who interpret it. The emotional response, appreciation, is elicited through the sense organs—and it comes to the observer who has a basis in experience for such appreciation as well as to the performer who “senses” his own achievement.

Not only is the person who performs a specific action (painting, dancing, tumbling) beautifully an artist, but so also is the teacher who sets the learning environment so that his student achieves beauty in performance. He who uses fine methods, ideas, and principles in teaching students to perform artistically is a true artist.

Aesthetic education has several distinct aspects, according to the senses chiefly involved. Visual education (eyes), plastic education (touch), music or sound education (ears), verbal education (speech), and kinetic or physical education (muscles) represent these aspects. Clay, stone, and sounds are media of expression for some of these, but the human body is the medium of expression in physical education. Whereas performances in diving, basketball, and baseball may not be classed as “fine arts,” some elements which distinguish the fine arts are evident and possible in these activities. They call for imagination and creativity and demand a systematic application of knowledge and skill.

Physical education is art when it satisfies its two main principles of *form* and of *origination*. Form, as either a verb or a noun, is an essential quality of good activity in physical education. The master artist-teacher will be able to evaluate the form—strong, lithe, well-proportioned body—of his pupil. He will also be able to evaluate the performance—the dive, the dribble, the swing—as to its good form.

The second main principle of art is origination. This is a function of imagination and creativity and is distinct to the mind of man who is enabled to appreciate creativity because of his mind. Physical education contributes to this unique difference between man and other animals—this creativity and appreciation of same—when it provides in its program for different modes of expression through movement, when it allows for the individual differences of the participants. Modern dance is an outstanding example of activity which embodies both the principles of form and origination but most activities will contain these elements if they are artistically taught.

Every teacher of physical education should consider not only the mechanics of activity but also the feelings, appreciations, attitudes, and convictions which are such important inner directional forces in the lives of those being taught.

## THOUGHT PROVOKERS

When art is defined as the application of skill and taste to production, scope enough exists to include many aspects of physical education. Many

experiences in this area have the potential for developing in pupils a wholesome life of sentiment and appreciation which is not merely an effervescence or affectation.

Try to apply the following principles to physical education situations:

1. The development of artistic appreciation and skill in physical education at the elementary school level should function as art in children's lives, not only for today, but as a long-term investment in years to come.

2. The exercise of the young child's imagination should give him freedom to practice, to explore, and to try for effects in expressing his imagination in tangible forms in various types of movement.

3. Art ceases to be art—something valuable for its own sake—when it becomes a struggle to follow directions and to meet standards set by others.

4. Artistic interests, like other interests, thrive on opportunities to achieve.

5. Children should not be held to artistic standards they cannot achieve since a sense of failure is not conducive to further learning.

6. Physical education experiences must be enriched with artistic expression in forms relevant to the stage of the child's experience if he is to develop real appreciation.

7. The physical education curriculum should include those elements of appreciation which enrich life, lift it above the merely animal plane, and make it more worthwhile.

8. The judge of any art must in some degree be a practitioner of that art.

9. Physical education which is predominantly naturalistic or biological should, from a philosophical standpoint, pay more attention to the spiritual side of man's nature, to art and morality.

10. Art education through physical education should provide opportunities for all to understand and enjoy beauty and to develop appreciation.

11. Emphasis on the aesthetic aspects of physical education activities should demand attention to (a) enjoyment and appreciation (b) knowledge and information and (c) creation and expression.

12. When we define appreciation as "the enjoyment of beauty wherever found," physical education activities provide adequate scope for appreciation.

13. Since the body is an instrument of self-expression and self-control, harmony and dignity of movement in various physical education activities should indeed qualify physical education as a "movement art" which has the potential for producing beauty and appreciation.

14. Probably the most important thing to accomplish in creative activity is to make it enjoyable.

15. Physical education, beginning in earliest childhood, should try to awaken the creative side of young people.

16. Art as "the beautiful way of doing something" should apply to every lesson taught by a teacher in the gymnasium, swimming pool, or athletic field.

17. "There is no impression without expression."

## ORIENTATION READING

Allen, C. L., "Creativity in Recreation," *Journal of Health, Physical Education and Recreation*, May-June 1961, pp. 18-19. Describes organization and activities of a class entitled "Creativity in Recreation."

HDoubler, Margaret Newell, "An Interpretation of Rhythm," *The Journal of Health and Physical Education*, September 1932, pp. 16-17 and 54. Sees the task of physical education as "making good motion habitual." Considers rhythm synonymous with "form," since rhythm sustains force and gives it orderly sequence and therefore is rich in art potential.

Metheny, Eleanor, "Athletics in the Studio," *Journal of Health, Physical Education and Recreation*, April 1959, p. 46. Explains the essential difference between sports movement and dance movement.

———, "The Unique Meaning Inherent in Human Movement," *The Physical Educator*, March 1961, pp. 3-7. Stresses the unique learning experiences provided by physical education and the inherent meaningfulness of kinaesthetic perception.

Sarsfield, Robert, "Physical and Artistic Expression in Gymnastics," *The Physical Educator*, May 1959, pp. 12-14. Makes a good case for gymnastics as an art form.

Smith, H. M., "Creative Expression and Physical Education," *Journal of Health, Physical Education and Recreation*, May-June 1962, pp. 38-39. Discusses the atmosphere and techniques necessary to nurture creative expression in physical education.

# 4

## PHYSICAL EDUCATION IN A CHANGING CULTURE

*A nation possesses the key to its future if it understands the purpose and inner logic of its own culture. Education used intelligently, is the means of obtaining that key.*

ARTHUR MOEHLMAN AND JOSEPH BOUCEK

THE WORD IMAGE IS MUCH IN VOGUE THESE DAYS. WE, AS AMERICANS, ARE concerned about what image we present to the people of other lands, yet we are not quite sure of what our own true image is or ought to be. Each society creates its own image by the behavior in thought and actions of its members. The image thus created gives form to the cultural values of a people—their way of life. As indicated in chapter two, this image reflects our language, rituals, gestures, customs, games, music, values, words, beliefs, laws—in fact our social inheritance. These various trends and forces of the environment, as “patterns of culture” become an integral part of the personality. In our case they distinguish us, for good or ill, as Americans. What we believe and do and how we react to various stimuli in our environment depends upon the culture in which we grow to maturity.

Our national culture is always in a process of reformation. Each generation inherits traditions and cultural patterns from preceding generations and then combines them with the learnings from present experience to reformulate the values which direct the conduct of its members.

Each successive generation of children and youth absorbs the culture in which it is immersed, guided by family, school, church, and

many voluntary agencies such as the scouts, 4-H clubs, Y.M.H.A., Y.M.C.A., Y.W.C.A., C.Y.O., and similar institutions. Such mass media of communication as television, radio, newspapers, and motion pictures are additional directional forces in molding personality.

Our concern here is to stimulate thought in the possibility of reformulating our American culture at a higher level by means of play, physical education, athletics, and the manner in which these might be treated by parents, teachers, sports writers, and game broadcasters in radio and television. The tremendous interest of our children and youth in games and sports and the proportion of the first two decades of their lives devoted to participation in or observation of them, make these activities important potential contributors to the improvement of American culture.

If education, including physical education, has such an important social function as an agency for identifying and transmitting values, a great deal of soul-searching is needed in determining what type of cultural environment and emotional climate of the gymnasium, the playground, and athletic field are most conducive to behavior patterns we wish to claim as the best *image* of American youth.

Who shall take the leadership and point out the direction that social change must take in order to provide the play, physical education, and athletic environment needed for the most satisfactory development of our children and youth? How can these important areas of life and education help diminish the conflict, frustration, anxiety, and insecurity evident in so many of our people?

You cannot understand a people unless you understand what and how they play. To the Greeks in the Age of Pericles, play corresponded to the inner soul. The deterioration of play as a social construction was correlated, at a later period, with the degeneration of civilization and the resultant disorganization of personality. Professionalism in Greece and the gangsterism of the Roman amphitheater accompanied social and moral disorganization in both lands. History repeats itself when conditions of which a given period of history is a function appear again. What *are* the cultural conditions of physical education, athletics, and recreation in America today?

## THE NATURE OF AMERICAN CULTURE

In a nation the size of the United States one must be cautious about generalizing. We can generalize neither about geography, scenery, climate nor about such cultural aspects as customs, speech, religion, or food preferences. Ours is a country of great cultural diversity. We have sub-cultures within the total national culture. People in the

Southwest are noticeably culturally different from those in the Boston area. Those in the Deep South differ from those in the Middle West. Despite these facts, there is a strong central core of common purposes and values, an "American Creed," which integrates this great nation with all of its diverse sub-cultures, creeds, colors, classes, and citizens of many national origins. This something in common which creates the image of an American and is represented, in a way, by the fundamental spiritual characteristics of our culture is, like religion, easy to recognize but difficult to define.

Each of us has a stereotype or fixed notion of the characteristics attributed to American and other ethnic groups. English people were characterized by a group of one hundred American college students as being sportsmanlike, intelligent, conventional, tradition-loving, conservative, reserved, sophisticated, and courteous. They characterized Americans as a group as being industrious, intelligent, materialistic, ambitious, progressive, pleasure-loving, alert, efficient, and aggressive.<sup>1</sup> It is important to consider how people "got this way," and we are interested in the relation of sports and games as a clue to our national character.

After our Revolutionary War, the North developed an urban and suave merchant class and a class of small farmers. In the South, plantation life took on aspects of the British manorial system. Eventually the ratio of mouths to food became such that the Western movement provided independence and new land for the restless and adventurous. The pioneer became the type around whom certain American traits gradually crystallized. Class distinctions were dimmed by the new problems all had to face and share. The new way of life led to a new personality type with intensified individualism, democratic spirit, and simple ruggedness—and to a feeling that each man was "as good as" another. The same general ideology and value system operated with honesty, hard work, thrift, obedience, self-control, will-power, persistence, and uprightness of character as cultural expectancies or norms.

The individualism and equalitarianism which took shape under the frontier conditions still operate as conspicuous attributes which differentiate Americans from other industrialized and urban peoples. The breezy, vigorous, self-reliant, upstanding individual represents the American character type. The frontiers to be conquered are no longer in the rugged West, but everywhere.

<sup>1</sup> Daniel Katz and Kenneth W. Braley, "Racial Stereotypes of 100 College Students," *Journal of Abnormal and Social Psychology*, Oct.-Dec. 1933, pp. 280-290.

All the America that has ever been has been a pioneering enterprise; and adventure has taken many other forms than western migration. Within recent decades scientific discovery, industrial research, and sheer new inventions and appliances have taken the place of geographic pioneering. It is indeed likely that new art forms such as modern photography, and new types of "social discovery" such as "group work" exemplify the same spirit. It may be urged that these adventures involve only a few people. But we must remember that at any given time the pioneers constituted only a small fraction of the total; indeed, our avidity for anything that is new, in education, music, slang, or soap flakes, is at least as intense as any expression of the pioneer spirit in an earlier era.<sup>2</sup>

The frontier struggle with its emphasis on getting the job done, excelling, pushing forward into new territory became a part of the American character. In contrasting the old with the new, it has been said that the Englishmen do things because they have always done them while the American does them because they have never been done before. It was the spirit of the frontiersmen in the Seabees during the last war that was, no doubt, responsible for their slogan, "The difficult we do immediately; the impossible takes a little longer!"

There is a relation of the frontier life to modern American sports.

To the American everything is a game. Life is a game. So is politics the great game. In sports he is ingenious, adventurous, inventive. He likes to pioneer, to change the rules, the clothing, and the implements of his games . . . We adore changes in our games. The pulverizing smash, the cannon ball service revolutionized tennis. The quick kick, the steel golf shaft, the Ted Williams shift, the aluminum pole, the electric caddy cart. By hit and miss, by guess and by God, the American has somehow invented the most original system of government known to man. Changing the shape of the football, he also perfected the forward pass and opened up a game that was becoming manslaughter . . . Today the world of business is often conservative, the world of sport, with something new almost every day of the year, is dynamic, attractive to youth, speculative, exciting. Sport, then, is the success story of the twentieth century, the modern way up the ladder, the goal to complete acceptance and complete Americanization. Any boy without money, background, or pull may rise to the top in sport. Notice that athletics is one of the few places in our life where the Negro has complete equality even today.<sup>3</sup>

<sup>2</sup> Gardner Murphy, *Personality: A Biosocial Approach to Origins and Structure* (New York: Harper & Row, Publishers, 1947), p. 838.

<sup>3</sup> John R. Tunis, *The American Way in Sport* (New York: Duell, Sloan & Pearce, an affiliate of Meredith Press, 1959), pp. 17-18. Copyright, 1958, by John R. Tunis.

The influence of our frontier days are everywhere evident in our culture but nowhere is the pioneer spirit more evident than in American games and sports.

## WE LIVE IN A CHANGING CULTURE: LIFE HAS A NEW ENVIRONMENT

We attempt to educate children and youth in the most rapidly changing culture in the history of the world. This fact presents a most fearsome challenge to the individual pupil and to educator alike. Contemporary social problems demanding policies of action of large and diversified social groups tax our abilities to adjust satisfactorily. Unless the teacher, living in a complex and rapidly changing society, understands his world, his education as well as the education of his students is apt to be futile. As we have previously indicated, culture is not merely a complex of environmental factors with which we have to get along, but something which is assimilated and integrated with our respective total personalities for good or ill.

Adjustment is the fundamental law of life. "Adjust or die" seems to be a natural psychobiological law. Adjustment problems become increasingly difficult in proportion to the complexity of the environment. The adjusting mechanism, the human organism, although having considerable plasticity, often finds the problem "too much for it." Man himself has created an environment to which he finds it difficult to adjust, hence peace and well-being does not exist for multitudes in our present social order; and the problem of emotional disturbance and mental illness is acute. This fact is of vital concern to physical education directors and recreation leaders.

It is true that education itself is a process of adjustment by adaptive change. Despite man's potentiality for learning, the time comes when the range of environmental variations becomes so great that adjustment is difficult or impossible. At this writing several young American astronauts have been under rigid mental, emotional, and physical training for months in order to be able to "adjust" to the extremes of environmental variations from sea level to orbiting around the earth in space at 17,500 miles per hour. This indicates that adequate adjustment demands both organic integration (health) and education ("know how").

Development in engineering and chemistry holds promise that man's mode of living will be changed more in the next ten years than in the past fabulous twenty years. There will also undoubtedly be further drastic changes in our social customs and culture patterns. The pur-



pose of our game . . . is adequate orientation of the human body to rapid advances in the mechanization of the activities of daily living. The object is to establish new uses for the body by the time each technological advance makes past uses of the body obsolete. The penalty for failure is human disintegration.<sup>4</sup>

Biologically, man pays a certain price for "using his head to save his hands." Modern civilization discourages muscular activity whether it be dialing a telephone number, pushing buttons to shift gears in the automobile or using a power mower on a 25' x 25' lawn plot—to mention a few of our muscular-activity-saving "gadgets." But let us look briefly at our rapidly changing national scene and ask ourselves, "what implications for curriculum planning and development for education in general, and physical education in particular are inherent in these facts?"

1. Americans are always on the move. Changing homes now at the rate of 36,000,000 a year and growing at a rate of a city the size of Omaha every month, they move North, East, South, and West to fill the empty spaces. "They crowd closer together in cities. They give the cities growing room by tacking on one new community after another into another sprawling patch work called suburbia." Ask yourselves what "uprootedness" does to people with no community ties and weakened family ties, who have no chance to develop prestige in community affairs and have no particular sense of belonging.

2. Super-civilization with its industry, automation, motorization, and competition will lead to physical and spiritual deterioration. There will be increased neuroses, peptic ulcers, spastic bowel, headaches, and high blood pressure unless the playing fields, the pool, and the gymnasium can substitute for the fields, the stream, and the blue sky above which kept our ancestors sane, healthy, and easy of approach.

Dr. Raab suggests that we forget the term "athlete's heart" which should be ridden out of the literature and use the term "loafer's heart" which is a real disease.<sup>5</sup> The mounting number of victims of arthritis, obesity, and heart disease, resulting from lessened physical effort plus the weakened muscles encouraging back ache, flat feet and other muscular disorders complete the picture. Dr. Raab calls these "diseases of civilization." An unknown columnist has said, "Unnatural and en-

<sup>4</sup> Lawrence E. Morehouse, "The Possible Role of Primitive Stress in Modern Living," American Academy of Physical Education, *Professional Contributions* #4 (Washington: American Academy of Physical Education, 1956), p. 39.

<sup>5</sup> Wilhelm Raab, M.D., "Loafer's Heart," *A.M.A. Archives of Internal Medicine*, February 1958, pp. 194-198.

forced inactivity is death to the soul, and when the soul shrivels, the body has little reason for lingering on."

3. Modern civilization violates biological laws in many ways. How long can we continue doing so and remain wholesome, happy, and sane? A few examples will suffice:

- (a) The pace of life is too fast. We emphasize speed and new records; we run from class to class at the ringing of bells. Between movies, games, meetings, parties, and dates a type of hysteria is created. Experiences become a blur.
- (b) The skilled artisan, the carpenter, the "smithy," the tinsmith, now stand in assembly lines. Instead of home-building carpenters and joiners, we now have prefabricated houses. The 1960 census says that America has taken to white collars. This is a startling reversal of our grandparents. About 28,700,000 citizens sit at desks or sit behind counters compared to 24,200,000 who use their hands in creating or producing needed articles. Farmers owning and working their own lands have diminished in number from 4,403,000 in 1954 to 3,704,000 in 1959. Separation of work from body activity is a phenomenon greatly on the increase, and inactivity is not conducive to survival.
- (c) The monotonous work of the assembly line, where nut #6 is turned from morning to night makes man a robot, an automaton. His is a "part process"; he never develops the sense of mastery or achievement which comes with creating a "whole" object. Resentment arises within him and in his phantasies at work he "pursues strange gods and weird political, economic, and philosophical doctrines." Is it possible that play and sports may serve as wholesome compensations and substitutes for the individual initiative, the personal artisanship, and pride in skills denied men on the assembly line?
- (d) The disturbance to the nervous system resulting from noise; the breaking of life's natural rhythms by night shifts, coffee breaks and irregular eating; the socio-economic pressures; the attitudes and emotions developed in a strongly competitive society, apparent from early years, calls for the teaching of relaxation in school. If it is not cultivated at an early age it is difficult or impossible to cultivate at all.
- (e) It is estimated that the average American child spends six hours immobile before a television set for every one hour he spends in vigorous exercise. In addition, as a toddler he is pushed about in a "stroller" when he ought to be walking. When he enters school, either mother or the school bus driver transports him

back and forth in a car. In junior high school he will condescend to ride a bicycle, but when he reaches the age of sixteen he would rather be caught dead than be seen riding a bicycle. He wants to drive to school in his own or the family's car.

Close to a half-century ago writers were expounding on the need of play, recreation, and relaxation for "relief from the stress and tension which characterize our modern life" and wondering how the "human material" could be shored up to withstand the "social strains."

Patrick, writing in 1916, states:

It is very probable that our strenuous life is bringing too heavy a strain upon the brain, particularly those parts of the brain immediately connected with the mental powers which condition that peculiar kind of progress which the world is now making. The tendency of the times is toward a very swift, industrial, commercial, professional, and intellectual activity. It is an age of great effort and endeavor, of stress and tension, of labor and strain, of scientific and inventive ability; an age of great efficiency and striving for efficiency; an age of variegation; a centrifugal age. It is not an age of peace, of calm, of poise, of relaxation, of repose, of measure, of harmony, of conservation. It is not a centripetal age. The spirit of the age is that of Francis Bacon. It is not the spirit of such greater minds as Buddha and Jesus and Sophocles and Plato and St. Francis.<sup>6</sup>

After fifty years, students of human biology, psychiatry, and activity physiology are expressing themselves in a similar vein. Environmental stresses and strains change from time to time. The human organism, however, is much the same as in the days of the Pharaohs. The same adjustments between body and brain have always been essential for internal equilibrium, sanity and health. Life is a quality in virtue of which people are active. With television and movies we seek to revolutionize childhood education, yet we know that an education in which children are passive and quiescent is of relatively little value. Children must respond; they must react to their impressions.

A race of men, which for some hundred thousands of years has stood on its feet and lived in the open and fought for its life, is not likely to thrive long in street-cars, automobiles, steam-heated houses, and hammocks and easy-chairs. We have become a sitting race, and it is doubtful whether a sitting race can long survive.<sup>7</sup>

<sup>6</sup> George T. W. Patrick, *The Psychology of Relaxation* (Boston: Houghton Mifflin Company, 1916), p. 16.

<sup>7</sup> *Ibid.*, pp. 268-269.

Man can learn from nature and history. No animal in wild nature has ever tried to modify the normal course of its physiological life and, thereby without any effort, has immediately found the optimum. From such optimum, the living being can but separate himself with his inventions, his delusions, and his prejudices.

## WE LIVE IN A CHANGING ECONOMY

It is an axiom that personality is a product of man's biological heritage modified by sociocultural pressures. We have implied that the pressures, tensions, and anxieties of life in a highly competitive, urban, industrial civilization place a heavy burden on the individual. The past century has seen man's unprecedented development in technical background necessary to control the forces of his physical environment. Concerning his social environment, the opposite is true. The problems we face today are largely social and man-made, and represent our inability to cope with problems of government, economics, poverty, crime, and war. Personality, which represents the subjective aspect of culture, therefore suffers from the contradictions of modern society with all its traditions and customs. Many of these are so mutually inconsistent that they create endless conflicts and insecurities in the individual and in society. To cite a few examples:

The great gap between moral ideals inculcated in our children and the rules by which they have to act as adults in order to attain material "success"; our teaching and preaching of sportsmanship, democracy, and health hygiene and the lag of adult practices in these; teaching our children to accept absolute authority and yet show independence of authority; teaching children to love their neighbors, "turn the other cheek," and to achieve financial success.

Rather than add to an already conflict-ridden culture which seriously affects growing children and eventually determines the individual and social adjustments of adults, physical education, together with its athletic programs, should seriously consider its educational and social role in American life in the interest of a more stable and happier society.

Economics investigates how nations or communities, large and small, and their individual members obtain the necessities of life and whatever else is required for the maintenance and improvement of living conditions or "standards of living"—a term which is basic to economics. In its efforts to achieve these goals, the nature of industrial society is to make uniform, and therefore to mechanize, one aspect of life after another. This tendency transfers from one phase of life after

another, subjecting much of life to machine-like conditions and making for material prosperity but leaving us physically weak, bored, or even intellectually, morally and spiritually delinquent.

Our concern here, however, is not with economic theory but with the fact that, since "personality is molded by the social order," we must re-examine the activities of the playground, the gymnasium, pool and athletic field as "environmental hammers" which beat the participants into shape and process them socially as well as physically. It is the teacher and leader in physical education, athletics, and recreation who must determine the "shape" most desirable by asking, "How well does the 'culture' of the playing fields and the recreation center, with which I am concerned, fit the intrinsic personality needs of the individuals involved?" As applied social scientists, we do not attempt to hammer people into shape so that they fit into the existing culture, which may be negative and unwholesome. We endeavor to *change* the general culture where it is not well ordered and fits badly with reference to human needs. This is a problem of individual leadership. There are hundreds of communities in *America* representing "sub-cultures" where the contributions of games and sports have changed markedly the cultural patterns of the entire community.

Murphy asks,

Is it not a fact that most of the social changes which are important have been brought about by individuals who have defiantly resisted all of the ordinary rules, used social forces to defeat social forces, and turned society upside down? Have not societies been blown to bits and reconstructed by individuals too strong for society? . . . The great individual causes extensive change. The personal factor has become of colossal magnitude.<sup>8</sup>

We pause to think of Socrates, Aristotle, Jesus, St. Augustine, Cromwell, Wesley, Gandhi, Einstein, and Lenin. These men focused the perception of people in a rather clear elemental way on the means of survival and directed "the whole caravan to take one route rather than another." Who will define the potential contributions of play, physical education, and athletics so clearly that all Americans will see them and reconstruct a new composite figure in our social pattern as a result of this new perception? Murphy indicates that,

In a time of crisis the individual likely to become a leader is he who senses the prevalent needs and knows how to structure the solution.

Many kinds of leadership, however, are possible. If leadership that will enrich personality and satisfy its many potentialities is what we want, we must begin schooling the leaders early in life; if they are to lead effectively as adults, in competition with leaders who embrace authoritarian methods and appeals, they need democratic experience, and in particular experience in democratic leadership. The more there are of these potential leaders, the more competent they are and the more deeply they love their task, the greater the likelihood that at the points of choice in the coming years they will guide the pent-up energies of a confused people in the direction of genuine self-realization.<sup>9</sup>

There is no doubt that economic processes are important factors in determining social organization and social change. Many social trends and forces operating within the framework of our American democracy influence the circumstances and conditions under which physical education programs must operate. Conversely, harmful consequences of these trends might, in some cases, be minimized by the direction of concerted national emphasis after a more rational consideration of the social functions of physical education, similar programs, and athletics.

A few of the social trends with which we have to contend are:

1. Our increased life span indicates that by 1950, one out of seven Americans will be over seventy years of age.
2. 60% of our people now live in urban centers, or on their fringes. One-fourth of the population live on farms.
3. Whereas muscular power was once the direct source of energy, mechanization now uses about 2% of our available muscular power.
4. Where the majority of the population once worked on farms in order to grow enough to survive, perhaps 10% of the population now grow enough to feed all.
5. The 40-hour week with paid vacation is now standard, and a shorter work week is in the offing with atomic energy near at hand.
6. The "population explosion" and the space needs for docks, housing, parking lots, and industry are seriously jeopardizing play space for children and youth and natural recreation areas. More than half of the serious losses of play space reported in a ten-year survey beginning in 1950 have occurred in the last three years. The gainers have been highways, commercial and industrial enterprises, community buildings and housing developments. The losers are children, youth, and adults.

<sup>9</sup> *Ibid.*, p. 913.

7. Technology has destroyed home and community industry; apprenticeship and craft guides have separated the worker from his product by confining him to one small part of the process of making his product.
8. Technology has largely separated work from body activity of the large-muscle or generalized type.

Technology has taught us to expect and depend on machines, not only for the production of things but for the production of commercial recreation for satisfactions and happiness. The result is a tremendous increase in "wants"; pressure to "keep up with the Joneses"; seeking "get rich quick" schemes; and the taking of risks to advance our social prestige. In turn, with the materialistic philosophy of a money economy, we get the idea that money can buy anything, even life. The task is not a simple one. We try, in good spirit, to destroy poverty without destroying wealth; to create security and still leave room for individual enterprise; to give every man the requirements for decent living without forbidding him to acquire for himself the luxuries he desires.

Physical education cannot "turn the clock back" but must step into the breach and offer a program to offset the evils of this mechanical age. Play and competition on the sports field satisfy inherent biological and psychogenic needs and, unless these urges are appeased on the socially useful side of society, society will disrupt itself and die in the toils of chaos or hopeless degeneration. In the past, luck and enterprise have prevented this and kept hope bright before our eyes. It is up to us to make sure that nothing destroys it!

The fundamental changes taking place in our social framework render many of our old physical education patterns outmoded. Our educational task is to create the type of physical education and recreation programs which will offer solutions to the problems of the new and changing social scene.

## INTERCULTURAL EDUCATION THROUGH PHYSICAL EDUCATION

In this rapidly changing world it is possible to reach any community with an adequate airport by airplane in thirty hours or less. Today, any curriculum which ignores the world as a frame of reference is rather obsolete. Political ideologies differ from country to country and these differences act as barriers to international understanding. Games, sports and the dance, however, are aspects of cul-

ture which act as important cultural bridges between peoples of the world. This "cultural exchange among people is the shuttle that weaves the common life of mankind." International competition in games and sports has been amazingly free from rancor or unsportsmanlike conduct. On the contrary, the examples of civilized social conduct in these contests before the youth of the world could serve well as models for some United Nations sessions.

This rapidly shrinking world should require of all of us some identification with people in other parts of the globe and some understanding of international issues. What better way of comprehending the ways of life, the values, and aspirations of peoples of other lands than by mutual exchange visits of artists and athletes whose activities represent the most "common denominators" of culture as unifying factors.

The New York Yankees playing baseball in Japan; the Kabuki Dancers interpreting this Japanese art form in the United States; basketball players, gymnasts, and other teams from several different countries exchanging visiting tours with American teams; American athletic coaches aiding many different nations with the development of their athletic programs; Olympic competition; dance festivals; boxing matches; track and field meets; international golf; tennis; skating; and ski tournaments provide for initiating increased social interaction and a broader discussion of people, training methods, and ways of life which provide interests and understandings quite beyond the "won and lost" column.<sup>10</sup>

In the autumn of 1956, President Eisenhower invited a group of men and women together to start a People-to-People Program in forty-two different spheres of human interest. "Eddie" Eagan, a Yale graduate and a Rhodes Scholar at Oxford and an Olympic boxing champion, was made chairman of the Sports Committee. At a recent meeting he said,

This challenge for world peace through international understanding I know had one certain pathway—sport. I recall how I had won a gold medal in boxing in the Olympic Games in 1920 from a Norwegian. We fought three furious bloody rounds and I was declared the winner. We still write to each other. If you can form such friendships in fighting, you certainly can in all the other sports.

<sup>10</sup> Helen W. Hazelton and Charles C. Cowell, "How Can Health and Physical Education Promote International Understanding" in *International Understanding Through the Secondary School*, ed. Leonard S. Kenworthy (Washington: National Education Association, 1956), p. 143.



It is the object of our People-to-People Committee to increase international exchange in all sports—not only once every four years in twenty-two sports as the Olympic Games so ably do, but constantly throughout the year, every year in all sports. We want to exchange boys and girls internationally. We feel that such exchanges will make our youth citizens of the world, and spread to the world the type of sporting spirit we have.<sup>11</sup>

The Olympic Creed states that "the important thing in the Olympic Games is not winning but taking part. The essential thing in life is not conquering but fighting well." Those who have been favored with close observation of the Olympic Games, have seen several thousand athletes from over eighty countries train together and eat together in the dining halls, have witnessed the farewells at the close of the Games, and are convinced that this is good. Having fought vigorously in competition, they return to their homes as friends. They have a better idea of how the rest of the world lives and have the feeling that they are members of the "family of man" after having experienced some of the common bonds that unite athletes of different cultures.

## SUMMARY

In a changing culture and, specifically, in the changing culture of the United States, physical education can have much to say as to the nature and extent of the adjustment that our people make to such change. The "image" of an American is given by the behavior in thought and action of the people of America. It is right that we have concern about the image we present to people of other lands, since we are not sure what our image is or ought to be. The image is merely a summation of the cultural values—the way of life. Since we are in a rapidly changing culture, our image must be constantly changing. That the change raises, rather than lowers the cultural level is the problem which we face in all our educational programs.

Language, rituals, customs, games, music, values, beliefs, and laws are among the many forces of our social inheritance which give the picture of our culture. There is a strong central core of common purposes which can be classed as American, but there are many sub-cultures within this country which should give caution in our attempting to cover the subject with any broad generalization. The specific cultural patterns in Boston are different from those in Texas; those in the Midwest are different from those in the Deep South. Still, the over-all cultural pattern is discernible—if not readily definable.

<sup>11</sup> Edward P. F. Eagan, "World Understanding Through Sports" in *Sixty-fourth Annual Proceedings* (Washington: College Physical Education Association, 1961), p. 17.

Our particular concern is the role that physical education has played in past cultural change and will play in the accelerating changes of the future. A review of the early plantation life in the South and the merchant and small-farmer "classes" in the North, of the Westward Movement and the pioneer spirit which propelled it, and of all the change from almost total European influence to the class-free frontier life gives us an understanding of the characterization of an American as a breezy, vigorous, self-reliant, up-standing individual. Nowhere in the American culture is the pioneer spirit more evident than in our games and sports.

Some of the major concerns for the future deal with our adjustment in a country which is saturated with automobiles, television, movies, buses, easy chairs, reducing pills, tranquilizers, and "push-button" labor. It has been suggested that the misnomer, "athlete's heart," be completely taken out of the vocabulary to be substituted by the words, "loafer's heart," a real disease. From the strictly physical viewpoint, we must meet such challenges with revised and improved programs of physical education.

The change in our culture is reflected not only in physical changes, but it has reflected in problems which are largely social. Our inability to cope with problems of government, economics, poverty, crime, and war makes it important that the personality of the individual—his adjustment to frustration, doubts, fears, and the many gaps between ideals and their "attainability"—be developed by sound educational programs.

Physical education, in its broadest interpretation, must look to programs which will give sound results in strength, skill, attitudes, and appreciation—utilized to the end of social and emotional adjustment apace with the changing society. Play and competition on the sports field satisfy biological and psychogenic needs, but only by excellent leadership can we insure that these satisfactions are adequate and on the socially useful side of society.

## THOUGHT PROVOKERS

The following generalizations represent explicit or implied principles. Try to illustrate the implications of their application to physical education situations:

1. "Every society creates images of what the behavior in thought and action of its members should be."
2. Behavior esteemed in one culture may be disapproved in another.
3. The conditions of the world require that the peoples try earnestly to understand one another's ways.
4. Human behavior is so essentially acquired that some of our most cherished beliefs concerning the laws of inheritance need revision.
5. Our social structure is lagging behind the advancement of science, giving rise to certain frustration and misfitting of individuals.
6. Values, although inaccessible to direct observation, are integral and powerful aspects of culture.

7. Internal conflicts and inconsistencies in our culture make for internal conflict and inconsistency in the individual.

8. Physical education has an important social function as an agency for transmitting values.

9. The more we know about the nature of social structure and cultural environment, the more intelligent should be our approach to social problems.

10. Democracy is improved and perfected as the number of personalities capable of living by and implementing our democratic values increases.

11. An educational system finds its guiding principles and ultimate goals in the aims and philosophy of the social order in which it functions.

12. The methods of education we choose depend upon our ideals.

13. The school by fostering intelligence should encourage examination of a world in which institutions, programs, and ideas that seemed justifiable in the past may no longer apply to present-day realities.

14. The social bases upon which any curriculum is built are in a state of constant change.

15. Although "changing" in physical education and athletics is inevitable, it will avoid becoming "deterioration" by due evaluation of *what* change is desirable from the standpoint of the long-range interests of society.

16. When valuable physical education experiences are no longer assured in the out-of-school life of youth, the school should provide the experiences contributing to physical education objectives.

17. Physical education teachers in considering facilities, equipment, and supplies should safeguard the developmental needs of children and youth steadily denied them by modern civilization.

18. Since wealth and wealth-production are functions of such variables as human values, standards, wants, health, physical vigor, habits, knowledge, and skill, physical education programs should affect American economic life in devious but favorable ways.

19. The physical education teacher should contribute to the social and psychological stability of our society not only by helping students to evaluate our old standards of conduct in sports but, also, by encouraging the emergence of new and more satisfactory values to replace those found less valid.

In the following situations, illustrate the principle or principles operating therein:

1. The peace of the world calls for more international good will and cooperation. Increased respect for and understanding of peoples of other races, nationalities, and philosophies of life are possible by greater intercultural exchange in games, sports, and related cultural activities.

2. Urbanization, with space demands for shopping centers and parking lots, has limited severely the outdoor play space of children and youth.

3. Increased social distance is a characteristic feature of city life (which is often devoid of warm human associations). Recreation which is

normally social is today often passive, solitary, and vicarious. Man reads the comics, watches T.V., listens to the radio, watches a ball game or goes to the movies.

4. All aspects of our society are colored by the industrial age. Our civilization is being reshaped in an age of power. Now an age of atomic energy promises changes beyond anything man has conceived. In this machine age the pattern of American economy is changing rapidly. The great decrease in the number of self-sustaining farms and the closing of the frontier eliminated much of the philosophy of *laissez faire* or non-interference with individual plans. In the last one hundred years technology has plunged far ahead of social and economic thinking. Changing patterns in our economy have been accompanied by changes in the nature and kind of work to be done. The twelve-hour day and the seventy-two hour week are gradually approaching a six-hour day and a thirty-hour week. Retirement years are being set earlier and man is living longer.

If schools recognize the place of leisure in the modern world what implications are there for physical education in the above paragraph?

#### ORIENTATION READING

Clark, Margaret, and Margaret Lantis, "Sports in a Changing Culture," *Journal of Health, Physical Education and Recreation*, May-June, 1958, pp. 37-39.

Coleman, James S., *The Adolescent Society*, New York: The Free Press of Glencoe, 1961. Valuable contribution to the study of status systems of American adolescents with excellent data on the social status value of male athletic prowess.

de Huzar, George B., *Practical Applications of Democracy*, New York: Harper & Row, Publishers, 1945. A small book with plentiful illustrations of functional democracy showing this social philosophy at work.

Denny, Reuel, *The Astonished Muse*, Chicago: The University of Chicago Press, 1957. About popular culture and mass media and sports becoming bureaucracies to satisfy the public's search for realism.

Gruber, Frederick C., *Foundations for a Philosophy of Education*, New York: Thomas Y. Crowell Company, 1961. Chapter IX (Society and the Individual) deals with the individual and the American society in which he lives and the problems and social and political education therein.

Mathewson, Robert Hendry, *A Strategy for American Education*, New York: Harper & Row, Publishers, 1957. A critical study of the current situation in society and education. Lays foundation for a psychosocial theory to meet the needs of a new educational orientation.

Stanley, William O., B. Othanel Smith, Kenneth D. Benne, and Archibald W. Anderson, *Social Foundations of Education*, New York: The Dryden Press, 1956.

- VanDalen, D. B., "Cultural Impact on Physical Education," *Journal of Health, Physical Education and Recreation*, Dec., 1961, pp. 15-17.
- Zelomek, A. W., *A Changing America at Work and Play*. New York: John Wiley & Sons, Inc., 1959. Discusses the rapid social and economic changes in our culture and their related meaning.

# 5

## PHYSICAL EDUCATION: ITS NATURE AND FUNCTION IN A DEMOCRACY

For social animals it is peculiarly important that they should learn to work together pleasantly with some measure of self-subordination.

J. ARTHUR THOMSON

THOMAS JEFFERSON AS ONE OF THE FOUNDERS OF AMERICAN DEMOCRACY realized very early that education was the bulwark against future authoritarianism and tyranny when he said, "If a nation expects to be ignorant and free in a state of civilization, it expects what never was and never will be." Where people are expected to think about everything, to choose between alternatives, and to vote, wisdom founded on knowledge is imperative as the chief impediment to autocracy. By extending free public education to all citizens, the United States has survived as the world's oldest republic and democracy, yet Mr. Khrushchev says that he intends to "bury us."

Physical education as a fundamental and informal means of education has been the common heritage of all basic divisions of mankind for centuries. The words of Bagehot (1826-1877), the English publicist, are worth repeating:

Man made the school, God made the playground. Before letters were invented or books or governesses discovered, the neighbor's children, the outdoor life, the fists and wrestling sinews, the old games (the

oldest things in the world), the bare hill, the clear river—these were education, and now, though Xenophon and sums become obsolete, these are and remain. Horses and marbles, the group of boys beside the schoolboy fire, the hard blows and the harder ones received—these educate mankind.

Man has a deeply-rooted admiration for physical fitness and prowess, going back no doubt to prehistoric times when these qualities were of obvious survival value. The ancient admiration for these qualities is still happily strong in our midst, though unfortunately it often exhausts itself in passive applause without active sharing. The athletic fervor among adults is too frequently that of mere bystanders or television viewers.

Education has the dual functions of developing each individual to the limits of his potentiality and of making him a social being—a citizen “who from his own choice and through his own self-direction is diligent in doing the things which promote the welfare of his social group.”

Games and sports and other forms of the “movement arts” still contribute to satisfy survival needs even though these are of a different kind. Today’s survival stresses are different but perhaps even more numerous than ever. High speeds and overstimulation, competition with people rather than with nature, air conditioning, sedentary occupations, obesity resulting from inactivity and overeating, and many other stresses make survival needs as pertinent as ever.<sup>1</sup>

Physical activity as a means of communication and expression has been dealt with elsewhere as art and as a means of communication in intercultural education.<sup>2</sup> We agree that activity is the sole means of education, therefore experiencing and learning are outcomes of social education. The repression of primitive impulses and the socialization of biological drives to the end of satisfying growing social needs is a fundamental law of human progress. Yet such continual repression necessitates constant effort, strain, and attention involving those higher cerebral centers whose development has conditioned progress. With progress and modern civilization have come conditions of stress and strain. To prevent periodic reversion to primitive habits such as war and other forms of mental illness and to relieve survival stresses in a wholesome and socially acceptable manner, we seek relaxation and expression in vigorous games and sports, often highly competitive. In this sense David Starr Jordan’s prize-winning peace essay of some years ago made much of games and sports as “moral

<sup>1</sup> See Chapter 4, page 72.

<sup>2</sup> See Chapter 3, page 56 and Chapter 4, page 77.

equivalents of war," as means of overcoming the rhythmical reactionary tendencies of many stresses represented by war.

In a society which engenders social ambitions and false appetites in violation of biological laws, much disharmony is bound to result. The rapidity of social evolution has made it difficult for human organisms to adjust themselves, whether in unprotesting assent or in rebellion. The mechanization of man leads to mental and emotional depression, to neural fatigue, and to consequent artificial short-cuts out of both, such as the use of alcohol, gluttony, phantasy and seeking after other "false gods." The answer, in part at least, is more play and less looking at it, more truly mind-resting hobbies such as games, gardening, fishing, hiking, music, and the like.

Biological ideals such as health and physical fitness cannot be fully realized without the aid of corresponding social betterment. Social and economic conditions have an important effect on health and disease. Our ugly, depressing, and deteriorative infra-human slums are heavily pinned on "spot maps" with cases of juvenile delinquency, admission to mental hospitals, tuberculosis, and other indications of debilitation.

The physical educator, as such, is not directly concerned with improvements in social organization. However, he knows that the educational results he seeks are often stymied by obstacles that are social rather than organismal. He may find himself with no shower baths, inadequate play space, and a small, dingy, dark gymnasium in a school placed in a crowded tenement district. He realizes with certainty that, in a sense, all biological sciences are social sciences as well; that the biological and the cultural world are one entity; that what the human organism strives for and how successfully his efforts are expressed are determined by the culture in which the individual lives and are not solely the result of biological instigations. For example, there are many cases where ill health was an outgrowth of poverty. There are other cases where poverty would not have arisen if health had been good.

Education, including physical education, at any moment is limited fundamentally by the economic, social, and political institutions which man has set up. The social framework is changing rapidly. One of the present unwise techniques of solving educational problems growing out of the new and changing social scene seems to be to de-emphasize and limit time for school physical education and to replace it with science and mathematics. We may well ask, "For civilized mankind, is not the social heritage (nurture, rearing) as supreme as the natural inheritance is fundamental?" The body is the instrument through which the mind expresses itself. "If we do not respect the bio-



logical trinity of organism, function, and environment and the unity of the organism which is body-mind as well as mind-body, can education *really* be a means of adjusting the individual more or less happily, sanely, and comfortably to the life of his day?"

An enlightened columnist put it this way: "Unnatural and enforced activity is death to the soul; and when the soul shrivels, the body has little reason for lingering on."

## THE BIOLOGICAL FUNCTION OF PHYSICAL EDUCATION

Biology is the science of life or living things. As a living organism, man lives in close relationship to other living things and depends directly upon plants and animals for food, clothing, shelter and countless other necessities of life. Although we have found it good business to study those living things upon which we are so dependent, our real understanding of the biology of man himself is far from complete. Man is of nature and is governed by natural law. Life has always been a mystery to him and quite probably the exact meaning of life itself will ever remain a mystery insoluble to human understanding.

It is the "vital activities" of nutrition, growth, reproduction, sensibility, and movement which enable us to recognize life in the creatures which possess them. Even if we define life "as a perishable property in virtue of which animals and vegetables are able to feed, grow, sense, move, and reproduce," we are still ignorant of what precisely that property is. We have gained a knowledge of the activities which characterize life, and that is as far as science can lead us.

Physical education, as biologically founded education, must consider the nature and needs of the individual human animal; it must help children and youth in the practice and development of their innate potentialities. The physical educator as a human biologist realizes that the basic phenomenon of life is an incessant process of coming to terms with the environment. While the biological law says "adjust or die!" society as a compassionate shield occasionally saves a genius, but as a dangerous shield often propagates degeneracy, delinquency, and mental illness. Many do not die but become maladjusted and inmates of prisons, reformatories, and mental hospitals.

The physical educator adopts the concept of the *gardener*, not the builder. Development to him represents the expression of heredity in a favorable environment. He thinks of the school with its playing fields, gymnasium, and swimming pool as a selective environment for influencing the young. In the way he plans and develops a curriculum and organizes learning experiences, he is guided by a desire to con-

tribute to the optimum growth of living things by providing for each boy and girl an environment which encourages the most complete realization of their respective natures.

The physical education teacher recognizes the human organism as a unity; a unique dynamic individual which absorbs and transforms energy, assimilates and excretes materials, grows and develops, and constantly expends energy in ways dictated by the conscious and unconscious purpose it is attempting to achieve. Biological heredity gives the child a physical mechanism so organized that he can respond to the necessities for survival. This adaptive behavior is action which meets the needs of the organism. Society's function is to make it possible to meet these needs in socially acceptable ways and on the useful side of society.

In the adaptive behavior of organisms, all parts, organs, and special structures carrying on the vital activities which characterize life are interdependent and interrelated. Each has a function to perform in the life of the whole; none exists for its own sake. In the human body are specialized structures such as brain, heart, lungs, and muscles. Each is dependent for life on the activity of the others. Mind and mental processes are subject to the same principle of integration. Mental functions such as memory, thinking, and the like are not ends in themselves but means whereby needs of the entire organism are better met. Man is an integrated organism in which parts are related to the total; the process of integration causes the parts to work smoothly together in the interests of the whole. This phenomenon caused Dr. Walter B. Cannon, a famous physiologist, to refer to it as "the wisdom of the body."

As physical educators, we are frankly interested in *movement*, not for its own sake, but because of its effects on other vital activities and what happens to human personality as a whole as a result of these effects. Muscles are the organs whose primary function is that of movement. They may move the whole body or parts of it. They move the limbs in walking; they move the blood through the blood vessels; they move the food through the alimentary tract; they enable the bladder and uterus to expel their contents. Muscular activity is such a constant occurrence in daily life, and its obvious effects are so common to all, that the complexity of the processes underlying it is frequently overlooked.

In muscular exercise through games, sports, gymnastics, and the like, almost all the resources of the body are mobilized to bring about the greatest efficiency of the neuro-muscular system. While the nervous system initiates and controls body movements, the energy required for carrying out physical work is developed in the muscles themselves, and

their power to transform potential into kinetic energy, which appears as work or heat, is the central phenomenon in muscular activity. Since the amount of oxygen which a man consumes is a criterion of the degree of activity of his muscles during exercise, the rapid deep breathing, the increased heart beat, the higher blood pressure are just as much a part of exercise as the muscular movements themselves. All adjustments occurring in the body are interwoven and integrated to produce the fabric of muscular exercise. In the trained athlete, every organ is working smoothly, and contributing its proper share toward bringing about the perfect harmony of action which is requisite for efficient muscular activity.

Exercise in games and sports is as much a nervous as a muscular process. Therefore its beneficial effects are psychological as well as physical. William James (1842-1910) said:

Even if the day ever dawns in which it will not be needed for fighting the old heavy battles against nature, it (muscular vigor) will still be needed to furnish the background of sanity, serenity, and cheerfulness to life, to give moral elasticity to our disposition, to round off the wiry edge of our fretfulness, and make us good-humored and easy of approach.

The stimulating influence of games and sports with emotional excitement, interest in the outcome of the activity, and interest in the zestful activity itself results in a larger accession of working power in the organism; this illustrates the psychological and physiological differences between motivated and nonmotivated activity. Although induced movements such as calisthenics are useful, they fall short of voluntary exercise exemplified in games and sports as a means of maintaining mental and physical health and vigor. Pleasure means heightened vitality. The unpleasant and disagreeable actually lower the vital tone of the organism.

Our discussion leads us from biology to physiology. In returning to the former, we are reminded by biologists and neurologists that the vital organs owe their development to the demands and stimuli of the muscular system. In the history of the species, "it was sensation and motion, not thought and learning, which laid the foundations of the brain, and stimulated the development of all its centers."<sup>3</sup> A half century after the preceding statement was made by an eminent biologist, other biological scientists of today still agree that, in the growing child, the muscular system is the key to the development of the brain as

<sup>3</sup> John Mason Tyler, *Growth and Education* (Boston: Houghton Mifflin Company, 1907), p. 11.

well as to the lower organs; that neural development follows the increase in locomotion and increased use of the sense organs (especially the eyes). The development of the humanlike hand was an important factor in the development of the cortex, justifying Dr. Tilney's statement, "the human brain is a hand-made organ."

A healthy revival of athletic sports, playground and recreation movements, and interest in outdoor life are imperative as wholesome forms of release from the "normal" American pace—a pace which taxes the higher brain to a degree incommensurate with the possibilities of physiological adjustment under sedentary conditions. Man cannot easily escape from his long past without paying a price.

### THE SOCIAL FUNCTION OF PHYSICAL EDUCATION

This heading does not refer especially to holding school dances or afternoon teas but to the school as a social system geared to the inculcation of the spirit and practice of democracy in its young citizens. Just as we find it difficult to teach swimming by correspondence, our pupils must learn by doing and by living the ideals we wish to have them personalize. Teaching democracy in the abstract, teaching ideals without action, is fruitless. The ideas, ideals, and principles we desire to inculcate must be related to accomplishments in games and sports if the gymnasium and playing fields are to achieve their greatest potentials as laboratories of life and democracy. The physical education curriculum and sports programs have the obligation of becoming the media by which our social and political philosophy is embodied in human behavior. While the pupil is building muscular strength, organic power, and skill, he is also absorbing the social values of his gymnasium class, his school, and his society in some form.

Naturally, the school as a social system must have a degree of internal consistency of value standards as these apply to organizational structure, curriculum content, and cultural patterns. These standards should be evident, not only in the area of the social studies, but in mathematics, science, shop, physical education—everywhere. Pupils are continually involved in the social process of forming and re-forming themselves into social groups such as home rooms, classes, clubs, student councils, orchestras, and intramural or interscholastic teams. The unity and productiveness of these various groups are the result of the network of roles developed and held by different participants in any given period of time. For example, the following list represents groups which have various positions to be filled, with each position having a particular contribution to offer to group success: "teams" of various kinds, the school orchestra, a profusion of school clubs, the

school council, the class organization. Any given student may fill any number of these roles in a given day.

By participation in these various roles, pupils develop the knowledge, skills, and values that society expects them to possess as citizens and individuals. The chief social function of the public school is to fulfill the educational needs of the society which operates and maintains it. Thus, school youth may develop to the level of action or practical competence required to deal effectively with the kinds of problems and situations faced in their private and public lives. Physical education teachers and coaches bear the heavy responsibility of relating the curriculum to life by making clear what the significance of their programs bear to the fundamental social needs and concerns of society or to the fundamental intellectual and emotional concerns of their pupils. In many cases, however, these relationships have been so remote as to require a tortuous rationalization to establish them. The life relationships and daily learning pursuits have been quite imperceptible to both teachers and pupils. The excellent teacher of physical education will recognize the role of his area in fulfilling some of the needs of a democratic society and will organize the educational environment accordingly.

national understanding and therefore to domestic tranquility and world peace.

To reinforce the content in Chapter 1 the following generalizations concerning the social function of physical education are made:

1. Some philosophy of government, of society, and of life inheres in every physical education program.
2. The basic principles for an adequate social philosophy of American physical education can be derived from the elements of the American tradition to be found in such documents as the Declaration of Independence, the Constitution, and the primary writings of the great contributors to American life.
3. Public education in the United States exists for the purpose of protecting and extending the democratic way of life.
4. Education of the individual cannot be considered out of the social context because of the constant interaction of the individual with his environment.
5. Physical education should contribute to the development of social intelligence exemplified by social awareness and social sensitivity and the understanding that individuals are integral parts of the social whole as inevitably as hand, eye, and heart are of the physical body.
6. Students should be given the opportunity to make their physical education classes and athletic programs examples of successfully working social life and laboratories of intelligent citizenship.
7. Physical education should provide in the gymnasium and on the playing fields the social interaction and cooperation, the "give and take," of common experiences that promote social efficiency and social appreciation.
8. People become socially efficient as they become sharers with others. They become socially appreciative when they share spiritually with others, experiencing such common trials, tribulations, joys, and successes as go with a season's membership on a competitive sport squad.
9. Physical education and athletic activities help many children in the lower or middle socio-economic level to move eventually to another or higher stratum. If democracy is to exist and thrive, social mobility must thrive. The poor must have the chance to become rich, the office boy must have the chance to become the manager, the substitute must have the chance to become a "regular."

10. Team sports, at their best, exemplify two excellent principles of democracy. One principle is obtained as the individual is encouraged to develop his own special skill in the specific position he plays. The second principle is evident as he proceeds to cooperate with other team members for a common aim and the good of the group as a whole.

Enemies from without and within seek to destroy our American way of life by creating disunity, by weakening our faith in our political and economic systems, by belittling our religious convictions, and by wrecking our economy. We suffer notably from an underlying lack of social integration. It is of critical importance that our social and educational efforts be intensified so that our economic life, political practices, religious beliefs, cultural interests, social relations and motives of individuals be re-examined and synthesized so that they serve a comprehensive and unified purpose.

Physical educators must understand the nature of prevalent maladjustments and problems and see the need for an integration of their own thoughts and aspirations as well as those of their pupils. In this way they will be serving the social function of physical education by promoting, sustaining, and developing the social order itself. This involves more than getting people to perspire in physical exercise; it involves concomitant learnings which derive from the nature of the exercise and the circumstances of its being performed.

### THE INTEGRATIVE FUNCTION OF PHYSICAL EDUCATION

We repeat that the word "integration" means "to make whole or complete by bringing together parts; to unify." It involves the creation of unity by relating the parts to the whole. They are "all members, but one body." We have already referred to biological integration as a fact of life which enables us to function as healthy organisms. As biological health represents a condition of integration of all parts (organs) of the organism which makes for best functioning, we may likewise think of social integration as a condition in which the various social units function together in the interest of society as a whole. Some of these units are the federal, state, and city governments, the school, the family, and over three hundred voluntary youth-serving agencies such as the Girl Scouts, Boy Scouts, Y.M.C.A., Y.W.C.A., C.Y.O., Y.M.H.A., 4-H Club. To make a well-integrated society, all these parts, along with a host of others, must act in cooperation.

A nation is a loosely knit organism striving to survive in a zoological field while displaying physical actions and reactions. Like biologi-

cal organisms, it is subject to stress, breakdown, and repair. As ideal general health exists in no animal, though most functions may work well enough to compensate for partial failures in others, so too is there a dangerous state of compensatory balance in social phenomena which leads to a condition we refer to as "social pathology." A nation as a struggling, fighting organism must be viewed biologically. As in a biological organism, each part must be related to the whole and must function properly in order to avoid a pathological condition. Social health and biological health are both dependent on integration—team work. We turn now to consider briefly the physical educator as a "social physiologist"<sup>4</sup>—because he plays an important part in total integration.

Education as the social process of change in the behavior of the human organism is not limited to schools alone. The physical education teacher is aware of the educative influence of the many non-school educational agencies that make important contributions to the health education, physical education, and recreation of people of all ages.

The school is but one among many educational agencies and forces of society. During the pre-school age his education is largely in the hands of his parents; during the period of school attendance the home, the playground, the theatre, the church, and the community perpetually engage his attention; and after his school days are over, shop, factory, club, civic organization, and political party exercise increasing dominion over him. Consequently, anyone who constructs a program of education on the assumption that the school is the only important institution and that the highly specialized character of its educational contribution need not be considered, is building on sands. Only as the school recognizes the work of other institutions can it perform its own functions effectively.<sup>5</sup>

In our American society, the school is charged with many inclusive and dynamic functions. It supplements and complements the home and the church with various types of learning experiences. It has a corrective function such as teaching the child play skills that could be, but are not, taught in the family, or for teaching such hygienic practices as bathing and proper food selection. It has a cor-

<sup>4</sup> Morley Roberts, *Bio-Politics: An Essay in the Physiology, Pathology and Politics of the Social and Somatic Organism* (London: J. M. Dent & Sons, Ltd., 1935).

<sup>5</sup> George S. Counts, "The Foundations of Curriculum Building," *Twenty-first Yearbook of the National Society for the Study of Education, Part II* (Bloomington, Illinois: Public School Publishing Company, 1926), p. 75.



rective function where faulty education has resulted from many other non-school agencies. It has a custodial function in preserving our American Heritage and the broad social ideals which best represent us. It has a creative function in that the research attitude helps people of all ages to seek better ways of doing things so that education does not merely maintain the *status quo* but encourages the "reconstructionist" point of view which seeks to improve society after carefully evaluating it. Finally, it has an integrative function to perform, and the illustrations mentioned here apply chiefly to the physical education teacher.

For the greatest educational impact upon the learner, we must find some way to integrate and coordinate the work of the school and the non-school agencies. Such coordination could have tremendous positive effect if the over-all thinking, activities, and purposes had some common denominator in forms such as a recreation council, a "youth-serving council," or a council of social agencies.

During the early days of our history, the church was the principal integrator of the then existing educative agencies. Today, the church comes into direct contact with less than half the population. The home cannot be that common denominator. The school, on the other hand, touches every community and every home in a vital way and therefore carries a mandate as the responsible agency of education to perform this function. Verbally at least, American education places major emphasis on local leadership and the adaptation of the work of the school to the educational needs of the community. In one Indiana community, the school takes the responsibility for coordinating its out-of-class activities with those of the voluntary youth-serving agencies in the community. Representatives of these various agencies plan jointly and make up an activities calendar for the year, thus minimizing conflicts in dates and hours. Hi-Y meetings will not conflict with basketball games, and catechism classes in the church will not conflict with Scout meetings. The entire calendar of school and community activities are planned cooperatively in the interest of all and the calendar is then printed and disseminated. Obviously, teachers of physical education, athletic coaches, and recreation leaders are in particularly strategic positions to effect greater integration and coordination of youth and school-centered recreation programs. To do this they must understand:

1. The place of experience in civic community education.
2. The nature of a program of community experiences appropriate for youth in our schools.

Youth acquire the meaning of democracy, the rights and duties of citizenship, and human values from their experiences in the various activities of a democratically-operated school and from well-planned and well-coordinated activities in community life.

If socially mature citizenship is one of the school's education goals, the school should plan a comprehensive integrated program of social living for all children and youth. On the playground and athletic field, through various types of activity programs, through educational and social events and community activities, all youth should be getting well-coordinated experiences in a wide variety of worthy social relationships. The school, through cooperation with other agencies, especially through appropriate democratic leadership on the part of the physical education and other teachers, can use its influence in bringing the experiences of pupils outside of the school into an acceptable over-all program of rich physical and social development.

## SUMMARY

*The survival of a democracy is dependent on an enlightened populace. Ignorance and freedom are contradictory, in a political sense. The United States, guided by its far-sighted "fathers," established free public education and has survived as the world's oldest republic and democracy because of that wise decision.*

However, the fact of having free public education is not, in itself, enough guarantee of democracy and its implicit freedom. The nature of the education will change any society. Thus it is that physical education has need for recognition of its vast offerings lest it be displaced in the school by a complete swing to technological education.

Originally and long, long ago, those activities which we now call physical education were the most important factors in human survival. As machines have been substituted for hands, feet, eyes, and even for brains, the educational demands for technical information have made some forget that the mind functions in a body and that, for optimum performance, the body must be sound.

The survival needs of modern society are vastly different than those of early man, but they are even more numerous than they were. They involve fortification against the ravages of the fast pace of modern living, the weakening effect of sedentary living, and the whole gamut of debilitating influences in the machine age. Survival is no longer a matter of merely maintaining life; it is a matter of maintaining physical, emotional, and moral balance, as well.

Physical education, as biologically founded education, must provide a laboratory in which the needs of the individual may find some of the necessary satisfactions. The movement, exercise, or activity programs must be

designed and conducted to the end of providing for giving strength to the vital organs while allowing for individual adjustment and development within the limits of biological inheritance. The "wisdom of the body" is a phenomenon of integration of all parts of the body. No educator, particularly no physical educator, has been adequately prepared unless he can recognize the interrelatedness of the component parts of the individual whom he would serve as teacher.

The social function of the school is to meet the educational needs of the society which sponsors it. The possibilities for social education in the programs of physical education are endless. In every group activity, there is opportunity for participants to practice elements of democracy. The excellent teacher will take advantage of the opportunities for developing sportsmanship, courtesy, and fairness while he is eliciting skill, perseverance, strength, and agility from the participants. Since democracy is a way of living, careful planning and excellent leadership can insure democratic principles as concomitants of programs as readily as they can assure strength from activities which seem to be just "fun." It has been repeatedly demonstrated that social mobility, a basic aspect of democracy, is associated with sports. The worth of the individual and the value of cooperative effort are concepts which accrue from well-conducted activities. Democracy is a necessary outcome of our educational effort, and physical education can contribute tremendously to that outcome without even introducing the word itself into its "vocabulary."

The teacher of physical education will recognize biological integration as necessary to the "inner" functioning of the individual. He will also find it extremely important to recognize social integration as necessary to the proper functioning of one individual among others. Recognition that the school is only one of the many educational agencies of society will bring about integration of school physical education and that included in a host of national, state, and local agencies, e.g., Boy Scouts, Girl Scouts, and 4-H Club. The experience derived from participation in programs thus coordinated cannot help but increase the "size of the citizenship" in a physical education student.

### THOUGHT PROVOKERS

Illustrate the operation of the generalizations or principles, implicit or implied, in the following statements:

1. Education is the control of "nurture" so as to make the most of hereditary "nature."
2. Physical education should provide the human organism with the kind of environment and experience which allow the most complete realization of its potentialities.
3. The foundation of education is biology; the end of education is the creation of a culture.

4. "Man is a biological animal immersed in a cultural field."
5. "Nature" initiates action without direction. The function of education is to give direction to the action.
6. Adjustment is the process by which organisms meet their needs.
7. The dynamics of activity come from wants and desires.
8. Man is an integrated organism in which the parts are related to the whole.
9. To live a human life involves the satisfaction of all sorts of physical, mental, emotional, and social needs.
10. Just as peace means much more than the absence of war, so health means much more than the absence of disease.
11. Positive health means vigor, harmony, poise, and balance—the whole organism of body and mind working as a unity.
12. In order for muscles to grow and develop they must receive optimum stimulation.
13. Training cannot be hurried; like growth it is a gradual process.
14. Organisms, over a period of time, tend to adapt to the demands made upon them.
15. Physical education should meet the biological needs of children and youth for vigorous activities and for adequate time and instruction in skills.
16. Physical education should adjust the program of activities to the developmental status and maturity level of the individual.
17. Planned physical education does not make substitutes for the principles, laws, and methods of nature; it works in harmony with them and facilitates nature in the attainment of her goal in the lives of individuals.
18. The human being is not an exception to other living things in the fundamental laws of life.
19. Motor activities are exceedingly important in the mental training of young children.
20. Physical education should be treated as a bio-social phenomenon, one that is biological and at the same time social.
21. The goals of physical education should encompass a healthy body, a trained intellect, desirable social relations, and emotional serenity.
22. Physical education in the gymnasium and on the playground and athletic field should represent a system of human interaction in which participants are oriented by their expectations concerning individual rights and obligations.
23. Real education is an emotional and social as well as an intellectual experience.
24. Participants of a culture or in a group tend to take on the existing values or norms of the group.
25. A democratic "climate" produces democratic values; a sportsman-like "climate" produces attitudes of sportsmanship.

26. Children's insecurities and frustrations show up directly or symbolically in their free play.

27. Athletic games and sports should serve as common denominators to bring youth from various socio-economic levels and races together on a common basis.

28. The quantity and quality of friendships developed by students in physical education classes or on athletic squads should be a concern of the good teacher.

29. Great emphasis should be placed upon play skills in childhood since they are of major importance in the social relationships of children.

30. Physical education teachers, in order to secure more positive educational results, should endeavor to integrate and coordinate their work of the school with such non-school agencies as the Scouts and 4-H Club.

31. Physical education should afford a realistic laboratory experience in democratic living.

32. A sense of group identification may result in more individual and social good than competitive self-assertion.

## ORIENTATION READING

American Association for Health, Physical Education and Recreation, *Developing Democratic Human Relations Through Health Education, Physical Education and Recreation*, Washington, D.C.: The Association, 1951. (First Yearbook). Indicates the contributions which the physical education teacher can make to the development of democratic human relationships through the schools.

Cowell, Charles C., *Scientific Foundations of Physical Education*, New York: Harper & Row, Publishers, 1953. An interdisciplinary problem-solving approach to curriculum administration and guidance in physical education.

Nash, Jay B., *Physical Education: Interpretations and Objectives*, New York: A. S. Barnes and Company, 1948. Physical education interpreted as a contribution to man as a functioning organism, a skillful organism, a thinking organism and an emotional organism.

Oberteuffer, Delbert, *Physical Education: A Textbook of Principles for Professional Students* (Rev. ed.), New York: Harper & Row, Publishers, 1956. Examines the place and function of physical education in the broad program of American education as reflection of biological fact and social ideals.

Shepard, Natalie Marie, *Foundations and Principles of Physical Education*, New York: The Ronald Press Company, 1960. Foundations and principles of physical education from the concept of organismic unity thereby concerned with associated and concomitant learnings as well as organic vigor.

Williams, Jesse Feiring, *The Principles of Physical Education* (7th ed.), Philadelphia: W. B. Saunders Co., 1959. Stresses the view that physical education is an education through physical activities which serve the whole person and not muscles alone. It therefore considers political, economic, and social as well as biological concepts.

# 6

## THE NATURE AND NEEDS OF HUMAN BEINGS

The fundamental needs of the child are in truth the fundamental needs of society.

LAWRENCE K. FRANK

THE SIMPLE LINGUISTIC DEFINITION OF A NEED IS, "THE ABSENCE OF SOMETHING WHICH IF PRESENT WOULD TEND TO GIVE SATISFACTION." This chapter deals in general with the fact that most animals have worked out patterns of behavior well adapted to their needs while man has not. Animals below man respond largely with built-in and unlearned patterns of behavior. For the child instincts alone are not enough. He must learn to meet an infinite number of diverse situations. In each generation the needs that must be met are different from those of any previous generation. The long period of human infancy and childhood give the child an opportunity to develop; to make gradual progress toward the maturity in those powers of adaptation which we call "mind": a function of a physical organ called the brain.

Since education is supposed to short-cut the slow process of adjustment to a universe in which change is the basic phenomenon, it must, therefore, help people to understand and learn to live in a world of change. Everything is in process. Life itself means process, movement, a continual change. Nothing that we can recall from our youth really abides in the same way that it existed at that time. Life is complicated further by the fact that the human organism as a totality is itself in a continual state of flux as is its relatedness to the environment, people, and things which it uses as a basis of orientation.

Thus, it is a progressive, changing environment which confronts the products of our schools. Education must emphasize intelligence, initiative, originality, and enterprise in developing its products. What we really want is not adjustment but *adjustability*.

The human being is a dynamic individual. By heredity he brings with him a physical organism that represents a great complex of needs. These directional forces from within represent a bundle of impulses that seek expression and press insistently for satisfaction. They do not remain dormant for teachers to act upon, mold, or fashion. The child by his inherent nature tends to act—to satisfy basic needs in infancy for activity, food, air, and comfort by kicking, crying, squirming, and manipulating legs, arms and fingers. As we follow him in early childhood, we see him exceedingly active with play, constructive impulses, and exploration with eyes, hands, ears, and other senses. He is investigating, imagining, and thinking—expressing his primary needs which seek expression and satisfaction. These activities condition the process of adjustment to the environment by which the organism meets its needs and they become therefore the starting point of the educative process.

As we ascend the scale of life, particularly in the animal series, needs multiply. In man they are varied and complex. To live a human life involves the satisfaction of all sorts of physical, mental, emotional, and social needs. The chief function of this chapter is to clarify the duties of the physical education teacher in identifying these needs and aiding human beings to satisfy them on the socially useful side of society and for wholesome individual development.

### THE INTEGRITY OF THE ORGANISM

The body and mind are never independent; such subdivision is entirely arbitrary and unfounded and was made when knowledge of functioning of the nervous system was non-existent. Although much is still to be learned about the brain and central nervous system, neurologists in general agree that the idea of two lives, somatic and psychic, has outlived its usefulness. Psychic life takes place in a physical body. Both psychic and physical activity disappear with the destruction of the nervous system; both are the outcome of its functioning.

The development of the organism is an integrated or unitary process within which various differentiations take place. Hence, the relationships between the various aspects of growth, such as weight, height, strength, motor aptitude, physiological age, reading readiness,



and dental development, throw light on the complex interactions that together constitute what we variously refer to as the development of the child as a whole, integration, interrelatedness in growth, or organismic development.

The physical education teacher often notes that social-emotional maladjustment is frequently accompanied by faulty growth. Here he does not indicate either as cause or effect, but, as a scientific student of development, he recognizes their interrelatedness and the circular nature of their mutual effects. All aspects of development—physical, social, emotional, intellectual—interact with each other. Motor development, such as game skills, plays an important role in social development, since the social contacts of children are made to a large extent through common motor activities. Likewise, the degree of motor development and skill are closely related to many emotional features of behavior, since physical strength, game skills, good coordination and an attractive physique give the child a feeling of competence, status, and adequacy. The organism is a unity whose parts are subordinated to it according to the laws of an indwelling purposiveness. Likewise, we can interpret conduct and experience only in their contextual relation to the total personality. In other words, sick bodies cause sick minds, and sick minds cause sick bodies. Integration means unification, and anything which affects one part of the organism affects the organism as a whole. When the organism is taken up with particularly painful attitude and emotion, digestion stops, excretion stops, growth stops; almost everything stops except that with which the emotion is connected. Anxiety, fear, and unhappiness, whether from a feeling of inadequacy, the harshness of the teacher or other conditions, have the same effect. Mental, physical, emotional, and social development are not only halted for the time being but the unpleasant memories also linger on to blight further development. In this sense, the culture of the gymnasium or playground, when assimilated, becomes a part of the child's personality and functions therein. This illustrates the point made earlier in the text that the physical education teacher is "a guardian and developer of human personality." We are interested in the development of organic power and skills, but are especially interested in what happens to human personality as a result of them.

#### BASIC PERSONALITY NEEDS AND THE CONDITIONS FOR THEIR SATISFACTION

A law of physics states that "a body at rest remains at rest unless acted upon by an external force." In psychology, the equivalent is, "No organism acts except when motivated by an interior source of

energy." We repeat that the processes by which organisms meet their needs are called methods of adjustment. Any disturbance or tension arising from a state of affairs, either within one's body (e.g., hunger or a drop in the blood sugar content) or in the environment in which one lives (e.g., rejection by one's peers), which impels one to do something to make conditions more to his liking is, according to psychological usage, a "need." When a tension is developed within the organism, this tension acts as a directional force. The motivational force from within and without the organism tends to adjustments (movements). A release from tension—a re-establishing of internal equilibrium—comes when there is opportunity actually to do something which the individual has desired to do but which was previously blocked. A need has been satisfied.

In developing and applying the "needs concept" to physical education and athletics, we may think of two types of needs and two types of usage.

*Needs (dynamic usage).* Fundamental forces within the organism which seek expression and satisfaction. These may be biological or psychogenic.

Biological needs are basic because, if they are not eventually satisfied, either the organism or the species will not survive. They may be looked upon as innate tendencies, which incline the organism toward goals prescribed by its own internal constitution, and as universal sources of human activity. They are implicit in the cultures of men at all stages of social evolution and hence are satisfied in a great variety of ways. It was from man's efforts to satisfy these needs that culture first began. Institutions such as athletics, agriculture, industry, and marriage, grew out of these efforts to satisfy primary needs for food, activity, adventure, sex, bodily security, and perhaps ego satisfaction. We might say that we have socialized these biological drives in the process of becoming civilized.

Psychogenic needs, acquired or socially derived needs, represent tensions coming from our interpretation of something outside the organism and are largely determined by social factors and cultural values—motivations, current fashions, traditions, and cultural expectations. These socially-derived or ego-satisfying needs, unlike biological needs based on heredity for which we have physical mechanisms so organized that we can respond to the necessities for survival, are the result of social inheritance. They are learned.

These socially-derived needs in our culture are represented by such societal pressures as the desire for achievement, recognition, approval, being wanted, status, affection, and belonging. These and

other expressions of value and of struggle for ego-satisfaction are readily observed in the American high school and on the college campus.

*Needs (implemental usage).* We satisfy our needs, resolve our tensions, and re-establish internal equilibrium through our relations to things and people. These become the *means* or implements or conditions with which we actually attempt to satisfy the need. This is illustrated by such statements as, "That boy needs an adequate and balanced diet;" "She needs physical exercise;" "That boy needs to belong to a team of some kind;" or "This child needs to be protected from the ravages of excessive and unequated competition." Whenever we try to list what children and youth must have for healthy growth and development and to function normally and wholesomely in our culture, we are using "need" in the *implemental* (as a tool) sense.

Physical education should be most *functional*, in that it satisfies specific needs of specific individuals in specific situations. We thus may become good mental hygienists by seeing the function of education as the process of developing in people potentialities for meeting life situations and employing practices aimed at helping people to grow, to meet a need, to achieve a purpose, or to get out of trouble. We should ask ourselves, "Does this experience develop in the individual the ability to meet life satisfactorily?" If it does, it is a wholesome experience and a legitimate practice.

In order to suggest the genetic development of the needs concept in children and to note the possibilities of play and physical education activities for satisfying these needs in a wholesome way, the following brief picture is provided:

While needs may be stated separately, they never appear alone. As the child develops, the interrelations among needs become more complex. There is a basic need for security, without which all else goes askew. In the healthy child there is a universal need for activity; just his being awake brings him the impulse to do something. As the child grows in conscious self-direction, the demand for success, mastery, and achievement becomes a strong need and the drive to action increasingly takes this form. With the growth of the consciousness of self, which in fact comes out of association with others, the desire for recognition becomes very strong and almost all-inclusive. Somewhat later comes the wish for cooperative activity and with it the drive for group acceptance. Still later comes the sense of belonging to a particular group with the desire for acceptance by this group before others; e.g., the adolescent peer group.

In physical education, we see the efforts of the child to satisfy

these needs. At first, child play is of a solitary nature. Each child plays by himself or treats other children simply as objects in the environment. When he is about two years of age, his play is semi-solitary. It takes the form of *parallel activities*. Children play side by side but not necessarily together. At age three-to-four years, they will use their blocks to build a joint structure. In nursery school, play becomes cooperative to a degree. We find activity groupings of twos and threes or more. Group structuring continues to increase with age. At the three-to-five age level, *imaginative* play has its beginnings. Children imitate objects and people and act out assumed roles, such as being an airplane, a doctor, or a teacher. A little later, play takes the form of low organized games of simple nature, such as tag or follow the leader. Children under twelve find teamwork in games difficult. They have not learned to subordinate self-assertion to group cooperation. From ten to fourteen, interest tends to center in the large general type of children's organizations like the Scouts. Ritual, symbols, badges, and definite rules hold the members together. Here, the more highly organized *team games* make their appearance. This stage is perhaps the most significant of all play periods, for it provides the major basis of cooperative participation in adult community life. At adolescence, group thinking and feeling are prominent in highly organized team games. Each player on the team must not only understand his duties but also the duties of all other players on the team because the group must function as a *team*. Hence, each player learns to control his behavior and submerge his own ego in conformity with the demands of an integrated social system.

The organism has definite potentialities, and because it has them it has the *need* to actualize them or realize them. The fulfilment of these needs represents the self-actualization of the organism. At all stages of development of the individual, certain basic needs must be met if he is to live wholesomely and learn effectively. Evidences of needs and ways of satisfying them vary at different levels of development. The problem of curriculum planning and development is one concerned with direct reference to the kind of needs most characteristic of each age level and with providing the experiences which satisfy them.

### PHYSICAL AND MENTAL HEALTH

All definitions of health today eliminate the physical-mental dichotomy or splitting the organism into two subdivisions. Various definitions of health verify this as follows:

1. "Optimum physical, mental and emotional well-being."

2. "That quality of life that enables the individual to live most and serve best."
3. "The ability of the organism to maintain adaptive effort."
4. "The integration of the total organism for best functioning."
5. "A state of physical fitness and of mental and social well-being and not merely the absence of infirmity and disease."

Mental health is concerned primarily with the education of the emotions and with the development of well-adjusted personalities by the intelligent training of children and the wise educational management of situations in which they are placed. This measure of an individual's ability to adjust to life and its problems, as they come to him, with a reasonable degree of satisfaction, success and happiness is a definite *function* of physical education. Teachers of physical education should take a genetic interest in the behavior of children. They should deal with the assets and liabilities of life, which may or may not develop into pathological behavior, by helping in adjustment to the inner and outer strains of life in a manner reasonably satisfactory both to the individual and the customs of society in which he lives. This is a large order.

As "guardians and developers of personality," we are interested in the sum total of the pupil's reactions to all the situations he encounters in the physical education area. These involve all his biological innate dispositions, impulses, and tendencies, as well as those dispositions and tendencies acquired by experience. Personality is a complex pattern of perceived characteristics and not a *sum* of anything. Some of the characteristics to which we should pay most attention are pupils' interests, ambitions, general attitudes, hobbies, values, tastes, and ideals.

Personality disorganization is proceeding at an appalling rate. Mental hospitals are overcrowded. One in fifteen of the high school graduates has the probability of developing a mental disorder. For about half of these cases, no physical basis can be found. The disorders are "functional;" the reason is sought in cultural or group experience. In our culture, social pressures are strong. Emotion arises primarily from the blocking of behavior designed to satisfy a dynamic need or the blocking of action which might contribute to the individual's sense of personal worth and security. The excessive denial of dynamic factors previously mentioned as "needs" or "motives" tends to bring about disorganized emotional behavior.

To be a good mental hygienist, the physical education (or any other) teacher must be aware of the child's basic emotional needs

and must help create the kind of educational environment in which they can be satisfied. Maladjusted school children are the result of a serious disharmony between the needs which they feel to be vital to themselves and the experiences of life as they are met. Formal education which is mostly interested in educating the child "from the neck up" has scarcely come to grips with the task of meeting the needs of developing personalities. Of all areas of education, physical education should be least guilty of this form of maleducation. Some reasons why this is true are here indicated:

1. Many physical education teachers have contact with the same children for several consecutive years.

2. Physical education teachers deal with human beings in situations where they see them in action, in performance. Weaknesses such as physical cowardice, sissiness, fearfulness, and social rejection are readily observed. They get a much more adequate view of personality in action than from the narrow confines of the clinical laboratory alone or from "paper and pencil" tests purporting to "measure" personality.

3. The informality of the student-teacher relationship in physical education and athletics is of unusual value for effective personality guidance.

4. On the playground and athletic field there is little gap between mental-emotional content and the carrying out of this content in action. Fantasy, representing a dangerous kind of inactivity, and meditation have no place on the playground. It is by action that we test the fitness of emotion and thought. Emotion without action, without overt expression, is an artificial state of things. Fear, for example, is nature's warning signal to get busy. At the bottom of most fears will be found an overactive mind and an underactive body. Feelings and emotions have a biological purpose: to augment action. Play and athletics are nature's great protective mechanisms or safety valves for siphoning off dammed-up tensions.

5. The physical education situations provide opportunities to give children and youth feelings of security by making them more adequate. As they become more adequate, they have less need for dependence. The trend toward autonomy and independence is a normal trend for all organisms. Physical strength and skill are alone tremendous factors in building this feeling of security because, with these attributes, the young child can defend himself, climb to the top of the jungle gym, and feel like the "King of the Hill" as he surveys the less adequate down below.

6. Sports and games are truly purges for the soul. They provide outstanding and socially acceptable means of controlling, sublimating,

substituting and compensating for many of our physical and social inadequacies in a wholesome way. The individual cannot be taught self-realization. He can only reach the goal through achievement.

7. The child who has had a rich play experience under intelligent leadership is usually more stable emotionally because, in games, misplaced emotion is followed quite directly by unpleasant results. If he is afraid (fearful), he is called a "sissy" by his peers. If he penalizes his team by a flare of temper, he is a "sorehead" who hurts his group by fouls. He pays the cost of his emotional mistakes about as surely and quickly as the man who cuts his hand when he jams it through the window pane in a fit of rage. The latter is not apt to repeat the process soon. Similarly, there are few deferred values on the playground. Thrills, risks, failures, and successes all contribute to the learning process and to personality development.

8. The playing fields and the gymnasium under good supervision give plentiful opportunities for self-expression. Children get a chance to choose activities and friends. They are more free from resentment and restraint. Self-expression and self-reliance are important factors in emotional poise and self-control.

9. The play situation normally includes the leader, the follower, the rival, the comrade, the competition. Since personal status and self-realization are contingent upon social acceptance, harmonious group activity is essential to the maintenance of emotional poise. Children who become socially oriented through play learn to consider the well-being of their playmates and this is conducive to emotional stability.

Feelings of confidence and strength and habits of friendliness and cooperation cannot be developed merely by *lecturing* about them. We must use the playground, gymnasium, swimming pool, and athletic field as mental health laboratories, for the *prevention* of mental ill health lies largely with us. Herein lies our opportunity to *immunize* youth against some of the emotional dangers of later life by satisfying the emotional as well as physical needs of pupils, by strengthening their security, and by increasing their stability and social effectiveness.

Some of the signs of poor mental health and of other traits which keep a person "at odds" with other people are indicated by these tendencies which are readily noted in the physical education situation:

1. To be timid and reticent
2. To seek solitude
3. To be suspicious
4. To lie
5. To lack fairness and sportsmanship
6. To depend too much on others

7. To dislike those of the opposite sex (when an adolescent)
8. To be oversensitive to others' opinions

If the urge to maturity is primarily biological, the barriers in its way seem to be almost invariably psychological. Good education helps remove these barriers and to inoculate children against insecurities and frustrations and gives them courage to face the world. This is preventive psychiatry or good mental hygiene and a major task of physical education.

## THE PLACE OF PLAY IN HUMAN GROWTH AND DEVELOPMENT

### *Growth and Development*

Physical education is thought of largely as that phase of the school program concerned with *growth and development* through the medium of guided experiences centering in the gymnasium, on the playground and athletic field, in the school camp, or in the swimming pool. With reference to education, it is better to use the term "growth" to designate *quantity* of the change produced by education but to reserve some other term, such as "development," for the *quality* of growth. Biologically, however, we may think of growth as increase in the number of cells, and of development as the increase in their size and functional power. Not only does a baby's digestive tract grow in size, but structural changes also take place which permit more complex digestion. This latter process is the result of development. We develop strength, not by increasing the number of muscle cells, but by increasing their size and functional power. Cells of the body multiply, then specialize. Cells make tissues, tissues make organs, and organs make organisms.

Maturation is the orderly development of specific growth and response patterns out of the "primitive state" determined by the germ cells. Development means progress toward maturity and represents the unfolding of the child's native abilities within the limits of his inherent capacity. It is the expression of heredity in a favorable environment and indicates the degree to which a person approximates the limits of his potentialities.

Physical growth and development follow a basic genetic pattern set up at conception. The body does not become physically mature all in one piece any more than it will eventually age and die all in one piece. Some organs mature before others. The muscles of the legs form one-third of the entire muscle mass of the body at birth. At ten years



they constitute one-half of the total muscle mass. We say that the child is growing and his legs are developing. During childhood, collars and shoes are constantly getting too small, but caps wear out. The skeleton, which determines stature, is usually not completed until the third decade of life.

The genetic plan sets up the time schedule for arriving at and leaving the various stages of development along the pathway to physical maturity. It also determines the broad outlines of what the body (the physique) will be like when the terminus is reached. Although normal children are essentially similar in their sequence of growth, no two children, even in the same family, are alike in the way they pass through this sequence. Here we see the importance of classifying students for competition in terms of maturity and body structure. A boy's strength usually doubles when he is between 13 and 17 years of age. At each age level, the strongest is usually about three times as strong as the weakest. Some children will develop physically much more rapidly than others; some more slowly. Yet in the total progress of growth each child will reach normal adulthood. We say that some are "early developers;" others are "late developers." But eventually they come out about even. The important point is that we should not expect the *same* performance of both when they are in the stage of rapid development. Strength is definitely one of the functions of maturation. The implications for careful consideration of individual differences is evident.

Physical activity in the presence of good nutrition is a basic factor in full physical development. Proteins, fats, and carbohydrates contribute to the chemical units and energy for body growth, repair, and activity through a common metabolic pool of intermediates which are chemically activated by vitamin-containing enzymes under the control and regulation of body hormones.

Sickly children tend to be skeletally immature for their years. Children who have died of lingering illness show first a retardation and then a cessation of growth. To help each child grow with as much vigor and abundance as possible, we should heed the dramatic effects of injury and disease on growth. We should not be guilty of impeding growth by depriving the child of adequate nutrition, rest, and the growth-stimulating potential of physical activity. Lastly, we should avoid being guilty of educational mismanagement in the gymnasium or on the playing fields by pushing children into activities for which they are not yet prepared, physically or emotionally. Educational mismanagement, then, becomes the third chief hazard to growth. No horse-trainer would ever think of letting a two-year-old colt, with his bone centers still un-united, run in a steeple chase, for this would result in

the animal's "breaking down its joints." What is good precaution for a colt, one would think should be a good precaution for a boy or girl.

The goals of education encompass a healthy body, a trained intellect, desirable social relations, and emotional serenity. The physical education teacher today is concerned inevitably with *all* aspects of growing since there is an interdependence between them.

### Play

Opportunity for varied play under healthful outward conditions is the chief biological need of children. Comparative study of children with full opportunity and those with meager opportunity for play indicates certain differences in mental, physical, and emotional development in favor of the former. Play is nature's method of education. It is a strong unlearned core of behavior designed by nature to give function-pleasure in satisfying developmental needs. The biological nature of children everywhere determines that they should be active and engaged in the activity we call play. How and what they play is determined by social heredity. Nature contrived to make play a pleasurable, enjoyable experience for the development of the child's budding capabilities. Play is the activity which children's own natures suggest and guide. For this reason the young child learns more and develops better through play than through other forms of activity. Slavson, a clinical psychologist, says,

play has an inner purpose: the purpose of using one's growing powers in order that one may grow further. Through play the child not only develops body and intellect, but also drains off excess energy that otherwise would be turned into himself and create tensions, making him restless, irritable, and antisocial.<sup>1</sup>

Play is necessary for normal growth and development of children as well as for continuance of happiness and effective living in maturity. The play of children is directly educative in effect. It is the mechanism of individual adjustment, of satisfying basic personality needs (psychic hungers). It is at the root of mental hygiene, for it represents a wholesome release of pent-up emotion. It is also a great socializing force. It satisfies social hunger.

In terms of achievement, the young child discovers and tests his powers largely through play. By tasting, touching, grabbing, pulling, tearing, and throwing, the baby learns the nature of the material world and what he can and cannot do. He also begins to develop an image of his own body. By running, throwing, jumping, climbing, and ma-

<sup>1</sup> S. R. Slavson, *Recreation and the Total Personality* (New York: Association Press, 1946), p. 3.

nipulating objects, the young child develops his physical skills. Each new accomplishment brings him a stimulating satisfaction and whets his appetite for a task a little more difficult. Children must have a wide range of activities so that they can discover what things they can do best and what activities bring them the most satisfaction. Play for the child is serious business.

The goal of the child's development is self-realization; the complete adjustment of the individual to life in all its aspects. The child is impelled toward this goal by an energy from an inner source. The impulse towards growth is simply the primary biological urge to completeness which is found in all living things. As indicated previously, while the urge to mature is primarily biological, the barriers to it are chiefly psychological and for these barriers, society, parents, and teachers are largely responsible. Thus, not only are emotions distorted by denial of play, but the sublimation of many biological drives has no opportunities to be socialized through play. Where there are no sublimations or substitutes in the form of play, the children antagonize other children and adults. As a result of their isolation, rejection, and punishment, they grow resentful, vindictive, and maladjusted.

Historically, we have had many theories of play among which we find Schiller's "aimless expenditure of exuberant energy;" Froebel's "natural unfolding of the germinal leaves of childhood;" Hall's recapitulation theory representing "motor habits and spirit of the past persisting in the present;" and Groos' "instinctive practice, without serious intent, of activities that will later be essential in life." In this sense, play is the apprenticeship to life work. None of these points of view is too helpful. Today, the tendency is to define play in a broad sense such as "any pleasurable activity carried on for its own sake, without reference to ulterior or future satisfactions."

It is better to think of play in terms of motive, attitude, and value. As we classify man's activities we find concepts such as infantile play, games, artistic work, work, labor, drudgery, and slavery. Each of these activities may be analyzed by describing the relationships between the end to be gained by the activity, the interest in the activity itself, and the remoteness of the activity needed to achieve the end. Each is totally different in function, technique, and object. To illustrate by using the two extremes of motivation, we can say that in the *free infantile play* of children such as beating a drum, the *activity* (beating) and the *end* (sound) are very close together, and *interest* attaches equally to both. Ends and means are equally interesting. The play of young animals is essentially of this nature. In games, of course, the end is no longer achieved with each stroke or action. A set of tennis or a little girl's doll tea-party requires a series of actions before the end

is achieved. In each of the seven activity concepts mentioned above, the degree of relationships between the activity, interest, and end change. Finally in the concept of slavery, interest *disappears* altogether and the end results give no stimulation to the activity. In fact, extrinsic force from behind alone pushes the individual into activity.<sup>2</sup>

The differences in the terms "play" and "recreation" are small yet subtle. Slavson feels that

serious activity has an external goal; it is intended to achieve conscious ends. Play has an *inner* purpose. . . . Recreation, on the other hand, while implying the elements of play, does not suggest primary growth as play does in the case of the child. Its value lies rather in the fact that it serves the need for relaxation from effort and tension. It aims at psychological and physical balance by bringing into action areas of the body and mind that are neglected in one's daily occupations, and to rest muscles, nerves, and brain cells that become tired and overstrained in the pursuit of one's daily living and working. It is for these reasons, perhaps, that the term "*re-creation*" is employed.<sup>3</sup>

Work and play together balance life; one feeds the other. Obviously recreation involves the "play" attitude. It is an activity in which the activity, end, and interest are so psychologically interwoven that one engages in it despite absence of financial or other external incentives.

Why is play of children important?

1. Because it is a wholesome safety-valve of pre-human origin for aggressions and other drives.
2. Because it allows the organism to test not only its ordinary powers but its originalities before responsibilities are too critical.
3. Because it bears some relation to the business of life, being in some measure "the young form of work."
4. Because it provides wholesome compensations for frustrations and failure experienced in other areas.
5. Because it provides opportunities for creativity.
6. Because it satisfies psychic hungers for activity, achievement, belonging, recognition, and similar needs.
7. Because it affords the normal mechanism of release for imagination and a legitimate means for needed occasional escape from reality.

<sup>2</sup> William Carl Reudiger, *Teaching Procedures* (Boston: Houghton Mifflin Company, 1932), pp. 322-326.

<sup>3</sup> See Slavson, *Recreation and the Total Personality*, p. 3.

nipulating objects, the young child develops his physical skills. Each new accomplishment brings him a stimulating satisfaction and whets his appetite for a task a little more difficult. Children must have a wide range of activities so that they can discover what things they can do best and what activities bring them the most satisfaction. Play for the child is serious business.

The goal of the child's development is self-realization; the complete adjustment of the individual to life in all its aspects. The child is impelled toward this goal by an energy from an inner source. The impulse towards growth is simply the primary biological urge to completeness which is found in all living things. As indicated previously, while the urge to mature is primarily biological, the barriers to it are chiefly psychological and for these barriers, society, parents, and teachers are largely responsible. Thus, not only are emotions distorted by denial of play, but the sublimation of many biological drives has no opportunities to be socialized through play. Where there are no sublimations or substitutes in the form of play, the children antagonize other children and adults. As a result of their isolation, rejection, and punishment, they grow resentful, vindictive, and maladjusted.

Historically, we have had many theories of play among which we find Schiller's "aimless expenditure of exuberant energy;" Froebel's "natural unfolding of the germinal leaves of childhood;" Hall's recapitulation theory representing "motor habits and spirit of the past persisting in the present;" and Groos' "instinctive practice, without serious intent, of activities that will later be essential in life." In this sense, play is the apprenticeship to life work. None of these points of view is too helpful. Today, the tendency is to define play in a broad sense such as "any pleasurable activity carried on for its own sake, without reference to ulterior or future satisfactions."

It is better to think of play in terms of motive, attitude, and value. As we classify man's activities we find concepts such as infantile play, games, artistic work, work, labor, drudgery, and slavery. Each of these activities may be analyzed by describing the relationships between the end to be gained by the activity, the interest in the activity itself, and the remoteness of the activity needed to achieve the end. Each is totally different in function, technique, and object. To illustrate by using the two extremes of motivation, we can say that in the *free infantile play* of children such as beating a drum, the *activity* (beating) and the *end* (sound) are very close together, and *interest* attaches equally to both. Ends and means are equally interesting. The play of young animals is essentially of this nature. In games, of course, the end is no longer achieved with each stroke or action. A set of tennis or a little girl's doll tea-party requires a series of actions before the end

is achieved. In each of the seven activity concepts mentioned above, the degree of relationships between the activity, interest, and end change. Finally in the concept of slavery, interest *disappears* altogether and the end results give no stimulation to the activity. In fact, extrinsic force from behind alone pushes the individual into activity.<sup>2</sup>

The differences in the terms "play" and "recreation" are small yet subtle. Slavson feels that

serious activity has an external goal; it is intended to achieve conscious ends. Play has an *inner* purpose. . . . Recreation, on the other hand, while implying the elements of play, does not suggest primary growth as play does in the case of the child. Its value lies rather in the fact that it serves the need for relaxation from effort and tension. It aims at psychological and physical balance by bringing into action areas of the body and mind that are neglected in one's daily occupations, and to rest muscles, nerves, and brain cells that become tired and overstrained in the pursuit of one's daily living and working. It is for these reasons, perhaps, that the term "*re-creation*" is employed.<sup>3</sup>

Work and play together balance life; one feeds the other. Obviously recreation involves the "play" attitude. It is an activity in which the activity, end, and interest are so psychologically interwoven that one engages in it despite absence of financial or other external incentives.

Why is play of children important?

1. Because it is a wholesome safety-valve of pre-human origin for aggressions and other drives.
2. Because it allows the organism to test not only its ordinary powers but its originalities before responsibilities are too critical.
3. Because it bears some relation to the business of life, being in some measure "the young form of work."
4. Because it provides wholesome compensations for frustrations and failure experienced in other areas.
5. Because it provides opportunities for creativity.
6. Because it satisfies psychic hungers for activity, achievement, belonging, recognition, and similar needs.
7. Because it affords the normal mechanism of release for imagination and a legitimate means for needed occasional escape from reality.

<sup>2</sup> William Carl Ruediger, *Teaching Procedures* (Boston: Houghton Mifflin Company, 1932), pp. 322-326.

<sup>3</sup> See Slavson, *Recreation and the Total Personality*, p. 3.

8. Because it provides opportunities for experiencing thrills and successes, as well as a proper dosage of risks and failures making for character-building.
9. Because it develops an individual's resources for effective adjustment to solitude.
10. Because it develops a give and take, a subordination of the self and a loyalty to the team, that are of great social value.
11. Because it has moral significance, providing for improvement of values concerning fair play, cooperation, and other social virtues.
12. Because it encourages attention and therefore personality integration, since interest is inherent in the activity itself without extraneous or interest-distorting motivations.

In play, more than in any other form of adjustment, the conditions surrounding emotional expression can be varied to meet the child's needs. The values of spontaneous, natural, and interested responses of the playground and gymnasium lie in their intimate functional relationship to the reactive capacity of the child. Overt expression of basic dynamic drives and their integration in achievement aid in fulfilling the mental-hygiene objectives of realism, adjustment to other personalities, and ability to solve life-problems.

### THE IMPORTANCE OF SKILL LEARNING

Motor skills are the physical education teacher's chief stock in trade. We are heavily engaged in the teaching of all kinds of skills related to games and sports. It is important, however, to re-emphasize the fact that learning is never singular. While motor skills are acquired, so are the accompanying knowledges, attitudes, interests, appreciations, and ideals related to the activity in question. At first, we shall briefly discuss skill and its neurological bases with little attention to its concomitants. Numerous inferences concerning these have previously been made. Since a number of socio-psychological attributes of the young are related to sports and game skills in our culture, they are important developmental variables related to personality.

Skill is the conscious acquaintance with, and mastery of, all parts of the body that may properly come under voluntary control. When we think of skill we think of coordinated movement. From past references to the process of maturation, we learned that the *basic* patterns of coordination and manipulation are not learned but are a matter of the innate establishment of the proper nervous connections and patterns of function in the nervous system. The timing of maturation is

characteristic of the species and, in general, of the needs of the animal. Nature sees to it that the physiological growth of the nervous system takes place at the rate and in the order that is necessary for the survival and normal life of the animal. Children creep, stand up, balance, walk, and talk at such time as organizing mechanisms in the nervous system are developed to the proper level of maturity.

Suffice it to say that the motor areas (those initiating voluntary movements of the brain) and the pyramidal system (joining the motor region of the cerebral cortex with spinal cord and eventually with the motor nerves to the muscles) are by no means the only parts of the brain involved in motor coordination. There is real collaboration and overlapping of executive functions, even though they are to a large degree segregated into motor areas such as an "arm area," a "leg area," a "trunk area," and a "face area." Localization of function in the brain is not as exact as older neurology taught us. Actually, these areas are not entirely independent. The organism is a unit. The whole doctrine of strict localization of function is invalid. The nervous system is an apparatus which always functions as a whole. A given stimulus produces changes in the entire organism. The entire nervous system, in fact, the entire physical organism, is an instrument of learning. "Localization of performance no longer means to us an excitation in a certain place, but a dynamic process which occurs in the entire nervous system, even the entire organism and which has a definite configuration for each performance."<sup>4</sup>

Early skilled movements, however primary, which involve the peripheral sense organs and muscles exert some sort of attraction on the nervous system to send out nerve fibers to them and therefore control to some extent the growth centers within the central nervous system. The appropriate centers of the brain are developed to an extent related to the degree of stimulation from the activity of the muscles and peripheral sense organs. The "readiness skills" or "perceptual skills" (those which enable children to interpret muscular, visual, and other sensations), so well developed in play of all kinds, influence the extent which the appropriate centers develop in the brain and central nervous system.<sup>5,6</sup> Muscular activity is absolutely necessary to the child to promote growth and development of all vital organs, the brain included. It was the sensation of movement which laid the

<sup>4</sup> Kurt Goldstein, *The Organism* (New York: American Book Company, 1939), p. 280.

<sup>5</sup> Paul Weiss, "Self-differentiation of the Basic Patterns of Coordination" *Comparative Psychology Monograph*, 19, No. 89 (1941).

<sup>6</sup> S. R. Detwiler, "Growth Responses of Spinal Nerves to Grafted Brain Tissue," *Journal of Experimental Zoology*, 74 (1936), pp. 477-495.



foundations of the brain, and stimulated the development of all its centers.

The so-called sixth sense, the kinaesthetic or muscle sense, is the sense by which muscular motion, weight, and position in space are perceived. The organs concerned with this sense are diffused all over the body, the receptors being found in muscles, tendons, and joints having their coordinating center in the brain. The skill we see in experts at "shooting a basket," or at controlling the flight of a tennis ball with various strokes instantly adapted to changing situations, is evidence of the high degree to which messages from the muscles and joints, the eye, and the vestibular mechanism having to do with balance may be coordinated by learning (training). Motor skills play a large part in our lives. They are essential to many developmental, vocational, and recreational activities.

We now turn to the main point. Why are play skills important?

1. In early childhood, children use their skills in connection with make-believe activities, in simulating the activities of their elders by "helping" and in play with other children.

2. Function makes structure. Children with a poorly developed kinaesthetic sense feel, and are, extremely inefficient. They look and feel awkward and ungraceful. Children with a fine kinaesthetic sense continue improving, and those who do not have it are apt to be discouraged and cease trying.

3. "To the psychologist, control of one's own body means the beginning of self-control in general. In bringing his own body under control the child brings under control the most ever-present piece of his environment. Having controlled this obvious part of himself, the child finds it easier to bring his temper and other emotions under control."

4. While "organic fitness" requires continuing activity and attention, motor skills have a great retention value and, in a sense, are learned for a life time. They give tone and color to our lives long after our school days are over.

5. Progression in body balance is seen in progression from tricycles to two-wheel "scooters" to two-wheeled bicycles. Dodging-and-running games carry over into self-care in traffic in our overcrowded areas. Judgments in time and space are involved in knowing when one can safely cross a street just as they are needed to know how much of a "lead-off" one can take from first base in order to "steal" second while the ball is going from the pitcher to catcher to second.

6. Ball-playing games of all kinds are so universal in the United

States that skills involving throwing, striking, catching, or kicking balls of various kinds represent indispensable skills for good gang (and therefore social) contacts in the elementary school years. Much social contact centers around physical skill in the upper elementary years. One's status in the group is influenced by his skills. The boy poor at ball throwing or slow in running and dodging is a group liability. The girl unable to swim, ride a bicycle, or skate is quite apt to find herself alone very often. There is a definite, positive, and significant relationship between games, skills, and the social adjustment and group acceptance of children and youth in our culture.

7. In our adolescent culture, the influence of athletic ability is becoming so powerful in molding the values of boys and girls that educators are actually becoming concerned about the obvious imbalance in adolescent values and its detrimental effect on the development of scholarship. In a careful study by Coleman, overemphasis on competitive interscholastic athletics, social activities, and the automobile as status symbols in the American high school are shown to result in a value system which leaves the scholarly student a much less attractive image to his peers than the athlete or a member of the school's "leading crowd."<sup>3</sup>

Obviously, we see here a case of "the tail wagging the dog" and the word *optimum* should be brought into play in the relation of school athletics to curriculum planning and development.

We see that motor skills are complex and involve practically every aspect of the child's socio-psychological status. In development they are ultimately related to perception (seeing and understanding) and intelligence, to previous learning in terms of progression, to present motivation, to emotional stability, and to social relationships.

Problem solving is the core of the teaching-learning process. We shall, perhaps, even come to realize that learning to swim or learning to play tennis are, for the adolescents, not ends in themselves but essentially the means by which they solve certain problems or achieve certain goals. They may wish to overcome the feeling of inadequacy and the resultant feeling of insecurity. Some may want to develop strength and the ego satisfaction of a socially acceptable physique. Some want skills for social acceptance and recognition, while others want to satisfy a desire for achievement and mastery.

People learn skills when skills become dominant interests in the achievement of purposes or for the solving of problems. We learn those things which are necessary for adjustment. In our culture, game skills are exceedingly important variables in boys and girls. Our motto

<sup>3</sup> James S. Coleman, *The Adolescent Society* (New York: The Free Press of Glencoe, 1961), pp. 304-305.

should be, "nothing to excess!" Games and sports should always contribute to the broader educational goals of our society, including scholarship.

### THE PHYSICAL EDUCATION OF THE EXCEPTIONAL

Every school system has pupils who, because they deviate markedly from the so-called "normal" child, require special skills and services on the part of all the teachers. Some are exceptionally gifted mentally or physically, while others are physically or mentally handicapped. All of these are called "exceptional children," the term being used to refer to "those who deviate from what is supposed to be average in physical, mental, emotional, or social characteristics to such an extent that they require special educational services in order to develop to their maximum capacity."<sup>9</sup> The task of identifying and meeting the needs of these children is an important educational matter for all teachers.

The philosophy of education in our country includes the doctrine that every child is entitled to an education to the limit of his capacity. Physical education is therefore committed to the education of all who are educable. Furthermore, those interested in "special education" recognize, as do physical education teachers, the school's responsibility for educating the "whole child." Dr. Lee describes the comprehensive functions of a modern school system as: (a) the *developmental* function—physical, emotional, social maturation, and adjustment; (b) the *diagnostic* function—educational, mental, and social, as well as medical; (c) the *remedial* function—correction not only of reading disabilities, speech defects, defective body mechanics, but also of emotional imbalance and social maladjustment; (d) the *preventive and protective* function—early detection of physical defects and incipient emotional disturbance; and (e) the *knowledge* function—not only the fundamental skills but the vocational possibilities.<sup>10</sup>

Since "function governs structure," evidence shows that bone grows in accordance with the strains and stresses placed upon it. Surely, one of the aims of physical education is to guide the structural growth of the body through education and practice of proper functioning and alignment of all its parts. Body mechanics should be made the basic principle of all good physical education. It must be emphasized,

<sup>9</sup> Nelson, B. Henry, Ed., "Basic Facts and Principles Underlying Special Education" in *The Education of Exceptional Children: Forty-ninth Yearbook, Part II, National Society for the Study of Education* (Chicago: The University of Chicago Press, 1950), p. 3.

<sup>10</sup> Lee, John J., "Educating Crippled Children," *Crippled Child*, XX (December 1942), p. 87.

of course, that teachers should recognize but not treat physical anomalies which lie in the province of the medical orthopedic specialist.

The term *adapted physical education* was selected by a professional committee, the members of which felt that terms such as *remedial* and *corrective* carried some stigma in the eyes of students so classified.

Adapted physical education is a diversified program of developmental activities, games, sports, and rhythms, suited to the interests, capacities, and limitations of students with disabilities who may not safely or successfully engage in unrestricted participation in the vigorous activities of the general physical education program.<sup>11</sup>

Rather than excuse pupils from physical education, every effort should be made to adapt the program to meet the needs of students. In the case of students unable to participate fully, the development of attitudes of confidence and social security toward participation in certain recreational sports is the major educational goal.

A national survey of high school physical education programs indicated that while the median national score, based on the analyses of ten curriculum areas (using the LaPorte Score Card), was approximately 28 per cent of the highest possible total score, the score for the area of remedial work and adapted physical education was a bare 4 per cent of possible. This area of the physical education program was found to be practically non-existent.<sup>12</sup> The adapted program should be psychologically as well as physically sound. Handicapped students should not always be segregated by themselves from the regulars. Groups might be mixed wherever possible—as in archery, dart throwing, horseshoe pitching, shuffleboard, and swimming. Where some of the handicapped are expert in certain skills, such as rope spinning or bait casting, they may teach some of the other students. Cardiac cases may become expert square dance callers or may give leadership in noon-hour social-recreational table games such as chess or bridge.

We need research in educational techniques and modernization of physical education curricula to focus our attention on abilities rather than disabilities in order to improve upon our 4 per cent of "possible" showing as indicated in Bookwalter's national survey. Finally, we need much closer coordination of the medical and educational services. We

<sup>11</sup> American Association for Health, Physical Education and Recreation, Committee on Adapted Physical Education, *The Journal*, April 1952, p. 15.

<sup>12</sup> Karl W. Bookwalter, "A National Survey of Health and Physical Education for Boys in High Schools, 1950-54" in *Professional Contributions #4, American Academy of Physical Education* (Washington: American Academy of Physical Education, 1953) p. 3.

must go beyond merely buying Easter seals for support of medical research.

## SUMMARY

The lower animals satisfy their needs by following their instinctive patterns. The child satisfies a few of his basic needs by responding to certain inner drives, but life soon becomes complicated beyond any such simple solution. The early responses, kicking, crying, squirming, give way to other involved means of seeking satisfaction such as asking, joining, trading, and participating. The continually changing environment requires new ways of adapting to it, and only the most complete and effective education can achieve adequate adaptability.

The human organism is a totality—an integrated whole. The whole complex matter of relationships between physiological development and psychological development is understandable evidence that what affects physical growth has effects on emotional development, on social development, and on every aspect of human development. This should give pause to any teacher, and particularly to the physical education teacher who handles so much of the early activity of the child. He who disregards emotional trauma in the gymnasium, while carefully guarding against physical injury, has failed to be a good teacher, "a guardian and developer of human personality."

Since organisms meet their needs by various methods of adjustment, those things which impel people to do something to their satisfaction are directional forces. A tension is a force as is thirst, a desire for company, or any of the multiplicity of drives to action. The student of physical education may apply the "needs concept" to his area of activities by viewing needs in two ways. Needs (dynamic usage) are forces within the organism which seek outlets of satisfaction. They may be biological needs which require satisfaction for ultimate survival, or they may be psychogenic needs which require action to acquire status, approval, or recognition. The former are essential to preservation of the species; the latter are essential to human orientation and social adjustment. A second type, need (implemental usage), is the kind represented by the statement: "That boy needs to belong to a team." This is the implement by which another need is satisfied. It may be secondary, chronologically, but it is of primary importance.

No curriculum or program in physical education has met its charge until it takes into account the differences in needs at various age levels. First, the child's activity is solitary. At age two, he advances to semi-solitary activity when he plays alongside, but not with, other children. At age three to five, he becomes imitative and "is" various things. Progressively, then, he goes through the "tag" stage, the group games not involving teamwork, and, finally, to cooperative enterprise—team games. This latter stage has tremendous implications for the individual's role in society, his citizenship.

Mental health becomes an increasingly greater concern, year by year. The good physical education teacher is also a mental hygienist, as he attempts to create an environment for satisfaction of the child's emotional needs. Play activities constitute so much of the means of giving these satisfactions to children that to ignore his role as a mental hygienist is, for the physical education teacher, to fail. Being aware of unnatural behavior on the playground and its implications is as much his job as conducting activities; it may be vastly more important.

The place of play in growth and development could hardly be over-emphasized. The fact that there are early developers and late developers makes for careful planning for instruction in physical education classes—for grouping, classifying, and balancing. There is not necessarily a right pattern of development to maturity. There is only an average which, to their own discredit, some teachers use exclusively. There are as many patterns as there are individuals, and they are variable in their amount of divergence from a given norm at any given time. At each age level, the strongest child is about three times as strong as the weakest.

Nature ordains play for children and has made it an enjoyable experience. Play satisfies emotional needs (psychic hungers), for it releases pent-up emotion. It satisfies social hunger, as it is done with others. It provides for the release of physical energies, and it gives strength, skill, and endurance in the process.

Skill is the chief stock in trade of the teacher of physical education. It involves exacting control of specific areas concerned, but it still involves the totality of the individual. Its roots are in the nervous system; its trunk is in the area of guided muscular activity; and its branches encompass both specific and general self-control, carry-over from one activity to another, social implications of status and belonging, and a wide range of concomitants from isolated personal contentment to the providing school spirit to howling hundreds. This particular "tree of knowledge" grows apace according to the nurture provided, primarily, by teachers of physical education.

## THOUGHT PROVOKERS

Illustrate the operation of the following principles or generalizations by application to some physical education situation:

1. Every living organism is a complete unity. The concept of totality and the concept of living matter are indivisibly related and synonymous.
2. The various organs of our body are meaningful only in relation to the total organism; their meaning and significance are found in the part they play in the life of the whole.
3. Every personality is a purposive unity directed toward an individual goal.
4. We can interpret conduct and experience only in their contextual relation to the total personality.

5. Each specialized structure in the human body has its own function to perform, but it is also dependent for its life upon the activity of other organs.

6. Mental functions, like sense perception, memory, thinking, feeling, and willingness, are not ends in themselves but means whereby the needs of the entire organism are better met.

7. The outstanding characteristic of organisms is the interdependence of each organ on the proper functioning of all other organs.

8. Physical educators who believe in the "whole child" doctrine should recognize very early that children have personalities as well as bodies.

9. The psychosomatic concept of medicine is recognition of the fact and profound importance of biological integration.

10. Man has more needs than any other animal largely because the process of differentiation (modification of tissues and organs in function and structure during the course of development) has proceeded further.

11. The essence of an organism is to live, and this means that it must be continually satisfying needs.

12. "Nature" initiates action without direction.

13. A need exists when the environmental factor which is necessary to carry out a given function is absent or insufficient.

14. Education should consider the nature and needs of individuals.

15. Physical and emotional needs are met by making adjustments.

16. The need for companionship, affection, status, and prestige requires certain environmental conditions for satisfaction.

17. A universal need in the healthy child is for activity.

18. The effort on the part of an organism to achieve homeostasis or internal equilibrium results in motivated behavior in the direction of goal satisfaction.

19. Needs, drives, or motives seldom appear singly.

20. Man's psychological capacities are tools of adjustment.

21. The fundamental drives and basic personality needs of people are everywhere the same.

22. Motivational, and therefore directional forces, come from within and without the body.

23. It is helpful to think of purposes as long-range motives.

24. If our attitude toward sport is a favorable one, we will be more readily motivated to participate.

25. When goals are reached, motives are satisfied, but the attitude or tendency to have the motive persists from one occasion to the next.

26. Play should help people liquidate some of their problems and help relieve them of worry and anxiety.

27. In play, adults as well as children are more truly their natural selves.

28. Play can be effective in neutralizing the conflicts of the neurotic child.

29. Evidence suggests that a neurosis is the result of the failure of the ego to receive adequate need satisfaction.

30. To be a good mental hygienist, the physical educator must be aware of the basic personality needs of children and help create the kind of educational environment in which they may be best satisfied.

31. The aims of good education and good mental hygiene are quite similar.

32. Real education is an emotional as well as an intellectual experience.

33. A concept of self as adequate and of worth is of extreme importance in mental health.

34. Play and athletics permit us to relive our more primitive experiences.

35. The physical education teacher should transform fear, frustration, and hostility in students into confidence, trust, and cooperation.

36. Hygiene should deal with techniques of prevention.

37. All behavior is caused. We change the condition of the organism (including behavior) only by changing the value of the variables which are responsible for the condition.

38. We develop a feeling of security in children when we make them feel adequate.

39. The function of guidance is to help people recognize their problems and plan ways of solving them.

40. Prevention of mental illness by good educational management is the best therapy.

41. "An ounce of good mother is worth a pound of clergy" (old Spanish proverb).

42. Mental and physical hygiene are inseparable, for behavior and adjustment involve the activity of the body as a whole.

43. Every person needs another to whom he can confess his difficulties freely, but without being unduly dependent.

44. "Play is the child's life, he lives in it and reveals himself through it."

45. It has been said that: "The measure of the value of play is the amount of work in it, and the measure of the value of work is the amount of play in it."

46. Unless a child is given a chance to exercise his basic needs playfully as well as seriously, he will lack the foundation for a later cultivation of leisure, by means of which he can retain throughout life an aesthetic appreciation of the intrinsic value of things.

47. Man is the most playful of all animals and his period of infancy is longest.

48. At play, children do not merely manipulate things, they manipulate ideas as well.

49. The more developed the brain, nerve and muscle mechanisms become, the more developed become the resulting forms of play.

50. Work and play have the same origins but are distinguishable by the conditions which force changes in actions.



51. "Play is the exercise you like and work is the exercise you don't like" (quote from a young boy).

52. Both solitary and social play are necessary for wholesome adjustment.

53. Play materials that lend themselves to a variety of uses help children to develop greater resourcefulness, greater skill, and richer imagination.

54. Adults are needed to guide and supervise but not direct or dominate the play of children.

55. To understand a child's play requires knowing many things about him.

56. Evidence on the nature of growth and on the pattern of child development has made it clear that physical activity is a basic factor in full physical development.

57. Deficiency in specific physical skills may hinder a child's social development just as the acquisition of special skills have a constructive developmental effect.

58. Joy and interest in the use of the body is normal and dominant for all children throughout the elementary school period.

59. If we are to make physical education programs useful as well as interesting to children, we must help them to enlarge the variety of skills as well as to amuse themselves after school by using skills already mastered.

60. Practice with a purpose is a prerequisite for the development of any skill at any age.

## ORIENTATION READING

Bonney, Merl E., *Mental Health in Education*, Boston: Allyn and Bacon, Inc., 1960. Relates the concepts of mental health to class management and emphasizes behaviors and attitudes conducive to positive mental health. Sociometric devices are suggested for analysis.

Cowell, Charles C., "The Interrelatedness of Development," in *Professional Contributions Number 6*, The American Academy of Physical Education, Washington: The American Association for Health, Physical Education and Recreation (November 1956), 122. Attacks dualistic tendencies in education. Stresses the organismic point of view that learning involves physical, volitional, intellectual, and emotional activity.

Davis, John E., *Clinical Applications of Recreational Therapy*. Springfield, Illinois: Charles C. Thomas, 1952. Discusses the rationale and utilization of recreational therapy as an adjunct to psychiatric treatment of mental patients.

Harsh, Richard, "Critical Needs in Human Development," *The Journal of School Health* XXX, No. 6 (June, 1960), 215. Considers the framework for guidance by which we can perceive human behavior and attempt to understand it in relation to the needs in human development as reflected in physical, emotional, intellectual, and social dimensions.

- Havighurst, Robert J., *Human Development and Education*. New York: Longmans, Green and Co., 1953. Discusses the nature and needs ("developmental tasks") genetically from infancy to old age. Has rich implications for curriculum planning and development based on the successive maturity levels through which the human organism passes.
- Henry, N. B., ed., "Mental Health in Modern Education," 54th Yearbook, *National Society for the Study of Education*, part II. Chicago: The University of Chicago Press, 1950. Treats of education as preventive psychiatry.
- Johnson, Warren R., ed., *Science and Medicine of Exercise and Sports*, New York: Harper & Row, Publishers, 1960. Chapter 28 by Cofer and Johnson deals with personality dynamics in relation to exercise and sports. Chapter 29 by Emma Layman discusses contributions of exercise and sport to mental health and social adjustment. Chapter 36 by the same author deals with physical activity as a psychiatric adjunct.
- Kelley, Earl C., and Marie I. Rasey, *Education and the Nature of Man*. New York: Harper & Row, Publishers, 1952. Discusses the nature of the human organism and an educational philosophy based on the knowledge concerning it. Looks at education from a multi-disciplined point of view.
- Knapp, Clyde, and Ann E. Jewett, eds., *The Growing Years—Adolescence*, Washington: The American Association for Health, Physical Education and Recreation, 1962.
- Layman, Emma McCloy, *Mental Health Through Physical Education and Recreation*. Minneapolis: Burgess Publishing Company, 1955. A mental hygiene text designed for physical education teachers and recreation workers.
- Maslow, A. H., *Motivation and Personality*, New York: Harper & Row, Publishers, 1954. Presents a good holistic-dynamic theory of personality with thorough elaboration of the concept of basic personality needs and their satisfaction.
- Prescott, Daniel A., *Emotion and the Educative Process*. Washington: American Council on Education, 1938. Excellent consideration of the influence of affective factors on learning and personality development.
- Remmers, H. H., and D. H. Radler, *The American Teenager*. Indianapolis: The Bobbs-Merrill Company, Inc., 1957. Pictures of the typical American teenager based upon the results of fifteen years' use of the Purdue Opinion Panel using scientific polling techniques.
- Sapora, Allen V., and Elmer D. Mitchell, *The Theory of Play and Recreation*. New York: The Ronald Press, 1961. Defines the role of the play element in culture and its contributions to human welfare.

# 7

## PHYSICAL EDUCATION AND THE LEARNING PROCESS

The learning process is the change in personality which constitutes a new insight, or sense of values or ability.

H. C. MORRISON

FROM THE DEFINITION AT THE TOP OF THIS PAGE IT IS EVIDENT THAT TO learn is to become different. Learning is the process of changing behavior through experience. Education naturally implies learning. Dewey has said that "to teach is to cause to learn." Instruction then, is the stimulation, direction, and guidance of pupils by so organizing their environment and experiences that the most effective learning results. The professional teacher, by good instruction, motivates pupils, short-circuits the learning process, and makes for more effective and rapid learning.

Change implies direction. The directions in which education is expected to change people are its objectives. If learning is the progressive change in situation-response activity in the direction of some goal (objective) we set, then education is the consciously controlled or purposefully directed process designed to achieve the desired changes in behavior.

### THE NATURE AND CRITERIA OF LEARNING

The school, by law, requires that children spend many hours, days, and years in learning the skills, subject matter, attitudes and ideals essential to active citizenship in a democracy. The skilled teacher, by

efficient methods of teaching, can reduce greatly the time needed for the learnings considered desirable.

The chief criterion of learning is change in behavior. Learning, as the acquisition of new patterns of behavior, is the result of experience. As the organism tries to meet its needs by the process of adjustment, it reacts to its environment. This reaction between organism and environment is called *experience*. In a very unfavorable, or "delinquent" environment, children learn anti-social behavior just as children in a favorable environment learn normal social behavior. In an unfavorable environment, children imitate their delinquent companions, they learn from them by direct teaching or they seize onto some chance solution by trial and error. They likewise acquire a change in personality with new insights, sense of values, and abilities, but these, in terms of social standards, are "delinquent" or on the socially unacceptable or regressive side of society.

Learning includes a great variety of changes in behavior, either overt (observable) or covert (hidden). In physical education, learning in motor skills, for example, is directly observable. We see the improvement in batting or bowling and can show this quantitatively by improved batting and bowling averages. Changes in ideas and attitudes are less observable directly. They are covert, or hidden, but suggest the change in the "direction" of the mind which in turn orients the entire organism to behave selectively in the direction of the "mental set" or "readiness" established by the idea, or attitude. Attitudes are implicit responses or dispositions to act toward or away from a situation, an individual, or social value. It is generally agreed that an attitude represents a type of emotional learning which results in the way we feel about a thing and is developed solely in situations which call it forth. The rather sensitive boy or girl, placed in a dingy gymnasium, given a tiny locker (with an unworkable combination lock) in an odorous room, and being laughed at in front of the class by the instructor for his or her initial awkward efforts at vaulting over a buck, is not apt to build an enduring *state of readiness* (favorable attitude) toward physical education or the people associated with it. Attitudes toward physical education as an activity, the instructor, democratic ideals, one's classmates, or oneself, are learned. The sum total of all of our general feelings for or against something, together with some intellectual elaboration, represents our philosophy of life which acts as a screen to determine what values we reject and what values we internalize and use as guides to action. Needless to say, attitudes and philosophy of life can be changed, since they are the result of *learning*. Thinking both stems from emotion and channels it. The student who finds experiences in the gymnasium exciting and meeting his

physical, social, and emotional needs also finds that these experiences appeal to his feelings as well as to his intellect.

Every individual learns. What he learns determines the modes of behavior by which he lives. We see the product of learning in the skilled athlete, the scholar, the engineer, surgeon, or artist. The behavior of the people about us, their beliefs, fears, skills, attitudes, and their adherence to our culture patterns and traditions are determined largely by the tendencies and predispositions acquired through learning. No one can claim that he has taught unless someone has learned.

### THE CONDITIONS OF LEARNING

The conditions of learning may be best understood with the concept of *functional dependence* in mind. This is indicated when there is such a relationship between phenomena that a value of one variable changes uniformly with changes in another ( $x$  varies as a function of  $y$ ). A simple example is that of the thermometer, in which the temperature represents one variable and the volume of mercury another. As the temperature increases, the mercury expands (rises); as the temperature decreases, the mercury contracts (falls). The value of one variable (the volume of mercury) changes uniformly as a *function* of the other variable (the temperature in degrees). Variations in one compel, through a constancy of relation, specific variations in the other.

The problems of learning in physical education must also be attacked with the idea of *function* in mind. Why do we have the issue of "Why Johnny Can't Read" so prominent at this time? Since learning to read is the function of a number of variables, researchers have either not isolated all of the variables of which learning to read well is a function or they have inadequate control over the variables that have been identified as valid.

In the illustration of functional analysis by allusion to the thermometer and temperature, we dealt with two distinct variables and we can formulate the relations between quantities in exact terms. However, when we think about health, learning, football ability, or any human phenomenon, we are forced to think of the interdependence and interrelation of all the factors involved. The generalizations resulting from this approach will depend upon the validity of the relationship of each factor to the phenomenon under study. We seek, therefore, for the most valid generalizations concerning experimentation by experts in the field of human learning. Answers to learning problems may be solved only by discovering of what set of variables learning is a function and operating upon these variables. Our learning process control will have to be limited to those variables of which it is a

function. Any event, including learning, is the result of existing conditions. The teacher's task is to determine what these conditions are and to create proper ones if necessary.

Let us focus our attention on motor learning, as one form of learning, in order to exemplify functional analysis by examining some of the variables of which motor learning (skill) is a function. To possess motor skill means to be able to act with dexterity and proficiency. In life there are many forms of action skills needed. However, in school physical education we teach a large number of action skills which play significant roles in the total development of children and youth.

In learning a motor skill, the customary functional equation is brought into play, e.g.,  $\text{Learning} = f$  (physiological maturity; absence of fatigue or distracting emotion; a definite purpose or goal; understanding, intelligence, or having a clear image of the movement as a whole; knowing just how to proceed; knowing why it is important to proceed in this manner; actually practicing the movements with attention and interest; confidence in ability to improve; knowledge of progress being made; getting a feeling of satisfaction from success, praise, and self-esteem; rhythm; and proper distribution of practice periods).

We can change the value of the left side of the equation (learning) only by changing the value of the variables on the right side of the equation. As we improve the value of each variable, we increase the value of (improve) learning which is a function of the several variables.

To simplify this important concept, we turn to mathematics and find that an equation is "an expression of equality between two quantities." In algebra, when a certain quantity,  $x$ , in the equation has a value which depends on that of another quantity,  $y$ , so that the value of  $x$  changes with every change in the value of  $y$ , then  $x$  is said to be a function of  $y$ , expressed  $x = f(y)$ . This would be evident in an equation as  $x + 2y = 10$ . In this case, if  $y = 1$ ,  $x = 8$ ; if  $y = 2$ ,  $x = 6$ ; if  $y = 0$ ,  $x = 10$ . In like manner,  $x$  might be a function of several variables, as in the case of learning.

As we have indicated, the idea of *function* has strong implications for education. If learning is a function of some set of variables, as previously indicated, we then know what to do about it. Scolding or punishing will do no good. We cannot remedy the situation by direct attack. We must change the value of *learning* by changing the values of one or more of the variables upon which its value depends. We motivate by inducing motives, developing "readiness," encouraging, developing understanding, and otherwise guiding, directing, and controlling those variables most important to learning.

Strang, while referring to health instruction, suggested the following laws of learning "in a nutshell:"

1. Know what is the healthful thing to do.
2. Know why it is important to do it.
3. Want to do it.
4. Know just how to do it.
5. Do it.
6. Get satisfaction from doing it.<sup>1</sup>

Learning to be healthy is a function of the variables indicated above. We might add that learning to be skillful, to be democratic, or to speak French is a function of the same variables. Every learning situation involves purpose, insight, and feeling.

Teaching in the gymnasium or pool, or on the playground and athletic field, abounds in conditions which often make situations complex. However, almost any conceivable undesirable result can be remedied or prevented by discovering of what set of variables it is a function and operating upon them. The able physician does the same. With the aid of blood count, basal metabolism, urinalysis, blood pressure, pulse rate, and similar tests he determines the variables of which one's poor health is a function and begins to do something about these.

We control those elements of situations resisting ordinary treatment (health, learning, etc.) through changes in other elements dynamically related to them. This is diagnostic and remedial teaching of the best type.

### THE VARIOUS TYPES OF LEARNING OUTCOMES

Various types of learning are not entirely distinct; many types of learning situations involve a combination of several types of learning. Knowledges, skills, attitudes, interests, ideals, problem-solving, and thinking are all involved in physical education and athletic activities. Baseball is again used to illustrate this point. Prompt mental response (memory) is involved in responding to the coach's signals. It is likewise a strong factor in motor skills in batting, throwing, and catching; interpretation of sensory experience (perception) in judgments of speed, distance, time, and space; modification of emotional response in accepting an umpire's decision in a critical play at home plate; appreciation of the game by success and by being with one's friends; developing attitudes and ideals of loyalty to the team by membership in a group having a common goal; and developing understanding, thinking, and problem-solving by being faced with various strategic aspects of the game.

<sup>1</sup> Ruth Strang, "The Six Steps in Learning Healthful Living," *Journal of Health, Physical Education, and Recreation*, XXVI, No. 2. (1956), 7.

Another way of classifying learning outcomes has been to refer to:

1. *Direct or Technical Learnings.* For example, in soccer one learns to "dribble," "trap," "head," and "pass" the ball, and one learns the details involved in each position as well as the strategy of team play as a whole. In baseball one must learn how to pitch, bat, steal bases, and play various positions under varying conditions, e.g., an expected bunt, or a right-handed versus a left-handed batter.

2. *Associated or Connected Learnings.* These might include the etiquette of various sports and the understanding of the elementary principles of the physiology of activity in "training" for a certain activity, e.g., the principles involved in "circuit training," "interval training," or "weight training." The selection and care of athletic equipment like bows, arrows, and tennis rackets, or the knowledge and technique of laying out a tennis court or an official horseshoe pitch, would fall into this category of learnings as would some understandings of the place of a given sport in our American culture.

3. *Concomitant or Attendant Learnings.* This category includes chiefly attitudes, ideals, interests, and appreciations. These are significant and powerful factors in education and mental health. As one engages in any physical education activity he exhibits certain attitudes toward the activity itself; he may be either interested or bored. He also exhibits attitudes toward his teammates, opponents, the referee, and the teacher as persons. He develops certain social, moral, and ethical attitudes which determine his present and future learnings and his behavior in similar situations to be faced later.

These important by-products of experience in physical education determine whether a student develops high sports ideals or a callousness toward sportsmanship, whether he develops fear or self-confidence, or whether he is an uncooperative "loner" or a cooperative citizen.

In the preparation of teachers, attention is given both to what pupils learn and how they learn. How people learn will affect what they learn, how much they learn, and the degree to which they retain what they learn. Method, or how the teacher organizes learning experiences, greatly influences learning, which results from the application of fundamental principles which we now ask the reader to apply to actual physical education situations.

## SUMMARY

Learning is the process of changing behavior through experience. All change is education. All change implies direction. These statements give full implication of the role of the teacher, who arranges circumstances so that



kinds of learning will take place. The better the conditions and circumstances, the shorter will be the time necessary for the learning to take place. Thus, the good teacher can give the direction and, in some measure, control the rate of changing behavior in pupils.

The fact that behavior changes through experience makes it important to be concerned with the reaction between the organism (the individual) and the environment—which is what experience really is. A favorable environment will provide learning toward normal social behavior. Conversely, a "delinquent" environment will lead in the direction of delinquency and all sorts of maladjustment. Thus does one's experience determine his destiny, so that only change in experience can give some new direction.

Two classifications of learning—change in behavior—are the overt and the covert. The physical education teacher is familiar with the overt, the observable, as it so clearly obtains in the learning of various sports skills. He may be less concerned, although he should not be, with the covert, the less observable, type of learning which is the area of attitudes and ideas. These, of course, are not separable in the learning situation, but both must be planned for as circumstances are set for learning to occur. Failure to do this total planning, and consequent teaching, can, for example, develop an extremely skillful snob.

Functional dependence is a relationship in which one variable changes uniformly with changes in another variable. It is a concept which clearly demonstrates conditions of learning. Analysis can be made with respect to learning a skill in a physical education class. If we name a skill and list the conditions on which the learning of that skill is dependent, we can recognize these things:

A change in any of the conditions will change the nature of learning of the skill.

The control or handling of the conditions of learning gives control, therefore, of the learning of the skill.

The excellent teacher then manipulates puppets, and the puppets are the whole gamut of variables of which the skill learned is a function.

Various types of learning are combined to give either general or specific education. One way of typing or classifying learning is to separate them into (1) direct or technical learnings, as indicated by learning to pitch, bat, or steal bases; (2) associated or connected learnings, such as the etiquette of the game, the size of the various game courts, and the kind of headgears which are safest; (3) concomitant or attendant learnings, which are best exemplified by such things as attitudes, ideals, and mental health.

## THOUGHT PROVOKERS

Principles suggest how any learning undertaken should be approached to be effective. Illustrate the operation of each principle by applying it to some physical education situation.

1. All learning takes place through self-activity which yields some fruitful results.

2. Learning depends upon impressions from the many sensory receptors; the more senses involved the more effective the learning.

3. Learning is always related to something.

4. Learning is never singular.

5. Over-learning or repetition of correct forms of movement is necessary for the perfection of complicated motor skills.

6. In learning motor skills, there are distinct advantages in the proper distribution of practice periods.

7. Learning takes places between trials; mental practice assists in the development of motor skills.

8. Interest, purpose, or an active intent to learn is much more likely to result in success than mere passive attention.

9. When a response to a situation is accompanied or followed by a satisfied feeling, that response tends to be repeated.

10. The ability to learn is limited by the degree of maturation attained at the time the learning situation is encountered.

11. Learning always originates in a challenge. Urges, purposes, wishes, desires, and incentives become motives.

12. Meaningful experiences are retained far longer than meaningless experiences.

13. In efficient motor learning, the learner should have, in addition to the desire to learn, a definite and clear mental image of what to do and how to do it.

14. Drill in sports skills is the prerequisite to increasingly smooth and rapid performance, but the drills should be matched to the situations in which the learner will perform in the sport.

15. Self-confidence is important to learning.

16. Verbal cues, such as: "Keep the head up!" and "Arm straight!" reinforce the readiness to try and give the pupil direction to the activity in progress.

17. Since ability to learn depends upon innate qualities as well as previous experiences, learning is highly individualized.

18. As far as possible, learning should be unitary, not fragmentary.

19. The physical, social, and emotional environment of the gymnasium is important to learning.

20. We learn those things which are necessary for adjustment.

21. It is the intense effort which educates.

22. The criterion of learning is change in behavior.

23. We motivate learning by "inducing motives," by energizing behavior in the desired direction.

24. Other things being equal, the rate of learning is directly associated with the appropriateness of the outcomes (rewards) to the needs of the learner.

25. We learn with the whole body.

26. The teacher controls the learning process only by controlling the variables or factors of which it is a function.

27. The personality of the teacher is an important factor in the motivation of learning.

28. Individuals do not learn at the same rate or in the same way.

29. Experiences are of most value to the individual when they are purposeful.

30. Skill is developed through the senses.

31. Learning is a dynamic process which goes on in response to inner needs and by means of self-activity.

32. Learning involves the whole organism, not specific isolated parts of it.

33. Learning is facilitated when pupils feel emotionally secure and accepted by the group.

34. Information and knowledge are not guarantees of action.

35. Just as learning to play basketball must be in the proper surroundings, so are social and emotional development the results of learning in appropriate environment and by guided experience.

## ORIENTATION READING

Frandsen, Arden N., *Education Psychology: The Principles of Learning in Teaching. An Educational Psychology*, New York: McGraw-Hill Book Company, Inc., 1961. Well documented research findings on the transfer of training as well as other aspects of learning applied to effective teaching.

Kingsley, Howard L., and Ralph Garry. *The Nature and Conditions of Learning* (2nd ed.), Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1957. A book which recognizes the fact that learning is the core of educational psychology. Well summarized and documented for each type of learning discussed.

Mursell, James L., *Psychology for Modern Education*. New York: W. W. Norton Company, Inc., 1952. A desirable, well-documented text for general review of the psychology of learning.

Sawrey, James M. and Charles W. Telford, *Educational Psychology*. Boston: Allyn and Bacon, Inc., 1958. Topics of motivation and learning treated from a pragmatic point of view from the student's frame of reference.

Skinner, Charles E. (ed.) *Educational Psychology*, 4th ed., Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1959.

Thorpe, Louis P., and Allen M. Schmuller, *Contemporary Theories of Learning*. New York: The Ronald Press Company, 1954.

# 8

## PRINCIPLES OF LEARNING APPLIED. METHOD: THE ORGANIZATION OF LEARNING EXPERIENCES

*It is a fundamental fallacy to assume that any one teaching method can be used by all teachers to fit all educational materials.*

RALEIGH SCHORLING

METHOD IMPLIES A REGULAR, ORDERLY, LOGICAL PROCEDURE FOR DOING something. Educational method refers to the manner in which learning experiences are organized.

Professional educators are prone to seize upon some method which becomes a passing fad for a few years and then fades out of the picture. In the past two decades we have seen the problem method, the supervised study plan, the contract plan, individualized instruction, the core program, and pupil-teacher planning. The assumption grows that there is only one good way to organize learning experiences if we could but find it. Actually, each method had something of value. Therefore, from a great variety of patterns of method, the wise and resourceful teacher will devise a composite method of his own which is appropriate to his own unique philosophy and personality. This will not be a fixed method, for the good teacher will be studying methods throughout his professional life.

Curriculum revision is largely an unrecognized desire to reform

teaching methods. A shift in educational philosophy, which means a change in our scale of values, also requires a change in method or technique of teaching. For example, if mastery of subject matter is the chief goal of education, one tends to emphasize such tricks of the trade as drill and appreciation with formal plans for teaching delimited skills. If one's educational value system includes concern for adjustment of personality, the education of the emotions and the fixing of desirable attitudes as strong nonintellectual determiners of achievement, one begins with the "needs concept."<sup>1</sup> A consideration of the fundamental needs of students by workers in biology, psychiatry, and clinical psychology suggests the concept of need as good motivation or basis for worthwhile educational experiences.

If we agree that in physical education the fundamental concern of the school should be to satisfy basic personality adjustment needs, in particular the need for experiencing self-realization, the satisfaction of human needs becomes the scale by which we shall measure the educational value of physical education activities. This means that physical education teachers will stress the "why" at least as much as the "how" in their endeavor to make the activities more meaningful and satisfying because they are the means of realizing purposes which are important to the student. Purpose, a long-range motive, is one of the important keys to method because interest is a reflection of the student's fundamental wants, drives, desires, and needs. Interest is evidence of purpose.

Since physical education activities involve most all of the senses, they are closer to the "biological frontier" than literature or algebra. Motivation, as a fundamental step in method, is not such a difficult basic problem of the physical education teacher for he has "nature" on his side to begin with. This does not mean that motor learning is fundamentally different from intellectual learning. The contrast between the two is more apparent than real. The good tennis teacher uses the same working principles as the good science teacher. A motor skill is really intelligence expressing itself in physical action. The method used in teaching controls what is taught. Teaching, therefore can properly be called a scientific technology or art founded on principle.

## PRINCIPLES APPLIED

Organizing principles such as integration, correlation, the pupil-centered approach, or the teacher-centered approach with strict adherence to subject matter are used to guide the planning of courses of

<sup>1</sup> See pages 103-104.

study, but the principles involved are difficult to define in a precise manner. Furthermore, no adequate research has been done to appraise their results in terms of learning theory or their actual effects. A few generalizations follow:

1. When teaching methods are revised, the curriculum itself is modified.
2. Method involves arrangements and conditions and does not forcibly mold people into some preconceived image.
3. We learn best by involving the total organism, therefore our "method" should involve as much *doing* as possible.
4. Students should be helped to see relationships among their physical education experiences and to generalize and apply what they discover to new situations in and outside of school.
5. The formulation of objectives is the foremost task of curriculum construction. If you don't know where you are going, no one can help you find your way.
6. The primary educational function of organization is to so relate the various learning experiences in physical education, which together comprise its curriculum, that they produce the optimum objectives of the school program.
7. Skill is a strong type of organizing element in planning and developing physical education curriculum. Both motor and social skills are elements that are acquired at a very simple level in the early grades and are broadened and deepened as the pupil moves on through the high school.
8. Genetic growth and development provide excellent organizing principles with scientific bases upon which sequential experience and continuity in physical education can be made educationally defensible.
9. The seasonal rhythms of summer, autumn, winter, and spring are factors of concern to anyone considering appropriate organizational structure of a physical education curriculum.
10. Regardless of the activity, students learn best when they develop insight into the complexity of the internal organization of the skill and participate in meaningful-whole contexts. Isolated learnings lack motivational qualities and should be practiced always in close relationship to and be re-integrated into the whole movement (e.g., golf stroke or swimming stroke, shooting a basket).
11. A unit is a series of worthwhile experiences bound together around some project or theme of interest. Physical education should employ large structural units, e.g., touch football,

hockey, badminton, thereby satisfying the principle that learning should be unitary, not fragmentary.

12. A specific skill, drilled in isolation, is not likely to function as well in later situations as that skill which has had repeated use as a variety of problem situations have called for it.

## INDIVIDUAL ACTIVITIES

Skill, we repeat, is the conscious acquaintance with and mastery of all parts of the body that may properly come under voluntary control. Skill is an organization and integration, for the most part, of bodily habits. It is a smooth coordination of reflex and habitual actions. Skill is developed through the senses. The pupil takes directions as to what he is to do, and on the accuracy with which his senses record the impressions upon them depends the mental model he ultimately follows, as well as the accuracy of his criticism and "check up" of his results. The senses most utilized are best trained.

Skills are acquired by practice with serious attention to the goal to be achieved. Throwing and catching skills, so prominent in many American games, are much more complex than we think. Gesell reminds us of what is involved in throwing, e.g., "Throwing involves visual localization, stance, displacement of body mass, reaching, release, and restoration of static equilibrium. Skill in throwing a ball requires a fine sense of static and dynamic balance, accurate timing of delivery and release, good eye-hand coordination, and appropriate functioning of the fingers, as well as the arm, trunk, head, and legs, in controlling the trajectory of the ball."<sup>2</sup> We see here a high degree of muscular coordination, which means that separate muscles involved are brought into unified action. One muscle contracts while another relaxes in order to get certain movements. Each muscle is capable of acting alone *without* training (practice), but when cooperation is required there must be a rehearsal. The more complex the skill and the degree of perfection sought, the more drill or practice required in order to establish the exacting type of muscular cooperation required.

Every useful skill in the world is based on a systematic scheme or plan of action. In their developmental stages most of them are crude and inefficient. Physical education skills range from the most simple, such as walking and jumping, to the most complex, such as a twisting somersault dive or figure skating. The expertness of figure skating calls for a series of delicate adaptations to sensations, chiefly kinaesthetic and visual, and those coming over the vestibular branch of the audi-

<sup>2</sup> Arnold L. Gesell, et al, *The First Five Years of Life* (New York: Harper & Row, Publishers, 1940), p. 84.

tory nerve connected with the semi-circular canals of the ear (balance). These sensations are necessary to the development of the skill. They gain representation in the cortex and there is a "pictured movement" of the act which becomes clearer with practice until fairly well perfected. When supplementary equipment such as a racket or ball is added to a skill, as in tennis or baseball, the skill involves the continual adjusting relationship to the other elements (the tennis or baseball) in motion as well as requiring body coordination itself. Practice is highly important in the development of visual and kinaesthetic perceptions (interpretations of sensation) in the development of motor skills.

Good audio-visual aids like loop-films or good demonstrations help the learner to develop insight and understanding and to get a mental image of what he is actually going to translate into movement. The good teacher knows what constitutes good form and is able to analyze and explain correct form to the learner. This also calls for the ability to provide the right verbal cue at the correct time in the sequence of movements.

We can *teach* a person "form" or how the proper movement is made. He *learns* it by actually trying to execute the movement after the proper mental image or "model" is obtained. His learning will depend upon accurate sense perception (muscular "feel," touch, vision). When he knows what is expected of him, he directs and controls his attention and observations accordingly. Practice without a definite purpose is like walking without a destination in view—you never arrive.

In the teaching of form and the learning of skill, the following points seem imperative:

1. A definite plan of teaching is important.
2. The system of instruction should be put into writing so that it is available to the learner as well as to the instructor.
3. Learning should be directed, for bad habits result from un-directed learning.
4. Progress should be charted by the student himself wherever possible, e.g., graphic representation of performance curve in bowling.
5. The learner should have a clear perception of the pattern or process to be learned, otherwise movements will be random and disorganized.
6. Good teaching involves:
  - (a) Having the subject know what to practice. Knowing the right movements. Knowing what is good form.



- (b) Knowing where to locate the faults. Right habits must be instilled.
  - (1) First *think* correctly by developing insight and understanding of what is expected.
  - (2) Then *do* correctly.
- (c) Knowing how to eliminate the errors.
  - (1) Teach right methods.
  - (2) Teach right habits of using right methods.
- (d) Practice with attention at properly-spaced intervals until the desired result is obtained.
  - (1) Right motions, both in number and in sequence.
  - (2) Constantly increasing speed only as correct form warrants.
  - (3) Look for constantly improved quality and smoothness of performance.

Research on the distribution of practice periods and on the relation of mental practice to physical practice indicates that some type of neural organization takes place *between* trials. It indicates that *thinking* about the correct tennis stroke when away from the tennis court does improve one's ability to master the stroke.

### TEAM ACTIVITIES

Any game skill, such as in basketball, hockey, tennis, or soccer, represents a combination of basic movements all of which are inter-related. Individual skills are used "patternwise," or "situationwise" in a game. Therefore they should be learned in situations closely resembling the game situations in which they are to be used. Confusion in instructional method of teaching team games is still rife. Much research is needed. Rodgers,<sup>3</sup> in one of the few extensive studies dealing with the subject, explored the effectiveness of teaching soccer, volleyball, and playground baseball under three different conditions as follows:

1. Playing the game without practice of any game techniques.
2. Practicing the skills of the game for 90 per cent of the class time and playing the game only 10 per cent of the class time.
3. Practicing the game techniques (skills) in relation to felt need for improving skill in those techniques while playing the game.

<sup>3</sup> Elizabeth G. Rodgers, *An Experimental Investigation of the Teaching of Team Games* (New York: Bureau of Publications, Teachers College, Columbia University, 1936).

The results clearly indicated that in groups taught by either the classroom teacher or by the special physical education teacher, pupils achieved significantly greater skill in the three games when taught by the third method, i.e., practicing the game techniques in relation to felt need for improving skill in those techniques while playing the game.

Furthermore, there was a significant difference in favor of this method when achieved information about rules and maneuvers of the game was measured. In addition, pupils adjudged this method as the one by which it is "most fun" to learn to play the game. Data also showed conclusively the superiority of the special teacher of physical education over the classroom teacher in the matter of the teaching of team games.

A team is an integrated social group, a miniature society. Each individual has specific functions and responsibilities, yet each is carried out in relation to the "generalized whole" or team. Each player contributes his individual skills and abilities to the success of the group (team) as a whole. Incidentally, as applied to citizenship, this is true democracy.

What makes for group or team success and how might we develop an effective team? A few basic generalizations worthy of consideration follow:

1. Although motivation is highly individualized, the problem of creating a relatively persistent psycho-physical condition which results in the individual's accepting a goal of achievement is less difficult in team activities because of group membership. The individual does not want to be stigmatized by others for not trying or not developing skill in his particular task. He wants to be accepted, recognized, and have status in the group. Self-esteem is a very effective motive.

2. Since the "purpose of the game" is basic to learning anything about it, one naturally stresses the rules of the game, but not in such large doses that the players get confused. Rules are not memorized but are learned *functionally* in real playing situations.

3. Along with the purpose of the game, understandings of strategy will gradually proceed from simple to the complex.

4. Instructional planning involves systematic tryouts and explanations of the specific functions of each specific position, e.g., centers, guards, catchers, goal tenders, or outfielders. Each is a cog in the machine (team) and each must understand not only his own duties but the duties of every other player if the machine is to function effectively.

5. The essential functions of each player must be identified, and then specific teaching techniques employed, e.g., in football, among other things, the center must learn to snap the ball correctly, to block in the line, to go through for downfield blocking, to acquire proper stance, and to maneuver defensively. Each function requires special techniques and special training, first individually, and then in relation to the functions of the other ten players if team play is to be efficient, thereby developing the concept of the "game as a whole."

6. Playing the game as a whole is necessary for developing insight into the game as a whole and perfecting skills "patternwise," but game situations alone do not provide enough practice. Therefore, "lead-up" games and team-tactic skills are practiced in relation to the game as a whole and frequently reintegrated into total game situations.

In team activities, each activity or sport presents a different teaching problem in many respects, yet the basic principles of learning apply to all. The major problem is to have participants develop a clear concept of the game as a whole. They may then work on separate skills and other elements and reintegrate them intelligently into the patterns involved in the concept. Early performance in the game as a whole is therefore important, as is the provision of drill on smaller parts of the whole when these are seen as important and needed for individual and group success. Skills when isolated must always be seen as parts of meaningful wholes to be developed effectively.

## SUMMARY

Educational method, the organization of learning experiences, has gone through a series of fads, each of which has had both virtues and shortcomings. In the main, the best method is the one the wise teacher devises as a composite of other methods. The teacher of physical education can readily find motivation, a fundamental step in method, as a less difficult problem than may other teachers. Nature has already incorporated into the individual urges and impulses which serve as inner motivation to the activities of physical education. This does not imply a wide contrast between methods used for learning physical education and those for other kinds of learning. It does point out that activities of physical education are closer to the "biological frontier" than are many other areas of learning.

In devising methods of teaching physical education, the teacher has a variety of things to take into account. He must be aware of the principles of learning, of the details of the activities to be taught, of the use of auxiliary teaching devices, and of the place of kinaesthetic sense in the gamut of interrelations involved. He must also know a variety of facts about practice, its nature and extent, its timing in learning the whole activity, and what is

right practice for each given element of each activity. For example, research has shown that, for given team activities, practicing game skills as those skills seem needed while playing the *whole* game is the best of several methods tried. The teacher who has sound basic principles on which he builds his method is the successful teacher.

## THOUGHT PROVOKERS

Endeavor to identify the principles of learning operating in the following situations:

1. Teacher X idealized a system of developing tennis players by carefully analyzing the interrelationships among the basic movements involved in tennis and started by having young children play hand-tennis on the sidewalk, handball, deck-tennis and paddle-tennis. He graded drill materials progressively to match coordination and the interest and recognition span of his pupils. As seventh graders, they rapidly learned to play regular tennis.

2. Teacher Y recognized the fact that learners react as a whole and therefore selected guided experiences with regard to their effect upon all aspects of each learner's make-up—intellectual, emotional, physical, and social.

3. Coach Jones, being interested in the growth of the learner's ability to put his learnings into successful operation in new situations away from the playing field, stressed the bases for sound choice and action in the major areas of life outside the school.

4. Despite the marvelous illustration of the education of Helen Keller, who was born blind and deaf, the progressive loss of each sense, one at a time, results in education becoming progressively more difficult.

5. Teacher B planned and organized her high-school physical education program around organizing centers called "units," recognizing a unit as a systematic program of action for organizing and integrating the learning experiences of pupils around some central theme of interest.

## ORIENTATION READING

- Andrews, Gladys, Jeannette Saurborn, and Elsa Schneider, *Physical Education for Today's Boys and Girls*. Boston: Allyn and Bacon, Inc., 1960. Follows the interests of boys and girls. Describes the various forms of activity that advance the theory of movement as the foundation of physical education. Well illustrated with diagrams and drawings.
- Bucher, Charles A., Constance Koenig, and Milton Barnhard, *Methods and Materials for Secondary School Physical Education*. St. Louis: The C. V. Mosby Company, 1961. Suggests principles and techniques for conducting dynamic program for junior and senior high schools.
- Bucher, Charles A. and Evelyn M. Reade, *Physical Education in the Modern Elementary School*. New York: The Macmillan Company, 1958.

- Bunn, John W., *Scientific Principles of Coaching*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1955. Application of physical and psychological principles to the coaching of several sports.
- Cowell, Charles C. and Hilda M. Schwehn, *Modern Principles and Methods in High School Physical Education*. Boston: Allyn and Bacon, Inc., 1958. Emphasizes methods and techniques that will best promote all-round growth based on analysis of the learning patterns of adolescents.
- Davis, Elwood C. and Earl L. Wallis, *Toward Better Teaching in Physical Education*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961. A comprehensive presentation of effective teaching principles designed to meet the diverse educational goals of physical education.
- Dexter, Genevieve, *Teachers Guide to Physical Education for Girls in High School*. Sacramento, California, California State Department of Education, 1957. An excellent well-illustrated guide to the school physical education of high-school girls.
- Jones, Edwina, Edna Morgan, and Gladys Stevens, *Methods and Materials in Elementary Physical Education*. Yonkers-on-Hudson, N.Y.: World Book Company, 1950.
- Knapp, Clyde and E. Patricia Hagman, *Teaching Methods for Physical Education*. New York: McGraw-Hill Book Company, Inc., 1953. Conceives of teaching as the organization and conduct of learning experiences with emphasis on physical education as a medium of education for the whole person.
- Kozman, Hilda Clute, Rosalind Cassidy, and Chester O. Jackson, *Methods in Physical Education*. Philadelphia: W. B. Saunders Company, 1958. Methods in physical education aligned with the best general methods in secondary education.
- Miller, Arthur G. and Virginia Whitcomb, *Physical Education in the Elementary School Curriculum*, 2nd ed. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963.
- Salt, E. Benton, Grace Fox, and B. R. Stevens, *Teaching Physical Education in the Elementary School*, 2nd ed. New York: The Ronald Press Company, 1960.
- Vannier, Maryhelen and Hollis F. Fait, *Teaching Physical Education in Secondary Schools*. Philadelphia: W. B. Saunders Company, 1957. Endeavors to link theory with practice at the secondary level. Numerous diagrams and pictures.

# 9

## THE CURRICULUM: PUTTING PHILOSOPHY INTO ACTION

*The chief aim in curriculum construction should be to choose the right kind of experiences and to organize them in such a way that they may be taught and learned most effectively.*

LESLIE L. CHISHOLM

ALL SCHOOL EDUCATION IS DELIBERATE EDUCATION; IT IS PLANNED EDUCATION. The curriculum in physical education presents to pupils an environment and experiences that have been carefully selected and organized.

In curriculum planning and development, the following four main questions must be answered satisfactorily, if an effective curriculum in physical education is to result.

1. What educational purposes should the Department of Physical Education seek to attain? (Objectives)
2. What physical education experiences should be provided that are most likely to attain these purposes? (Selection of activities)
3. How can these educational learning experiences be best organized? (Teaching method)
4. How can we determine whether these purposes are being attained? (Evaluation)

The problem of curriculum design is not one of whether or not you are going to consider either the subject matter (content) of physi-

cal education or the subjects (pupils) but is one of realizing that both must be considered in relation to each other. Physical education does not choose between "child-centered" and "subject-centered" education, it must consider the interrelationships involved. Every learning situation includes a learner, a purpose, a content, and a process. Each plays an important part in the learning experiences of the pupil.

In order to clarify concepts of curriculum, let us philosophize a bit about meanings of terms. The all inclusive meaning of curriculum is "the life and program of the school." Under this definition the scope includes all activities in the school carried on under the supervision of school authorities. This refers to such extra-class or out-of-class activities as band, club activities, intramural and interscholastic athletics, the school paper, and the yearbook as well as regular academic activities. We see that the concept leaves no place for the old term "extracurricular" activities.

The curriculum is that body of experiences by means of which we translate our social and educational philosophy into teaching procedures. This is done by having teachers consciously select and organize experiences for the purpose of developing the personalities of pupils by new insights, senses of value, skills, or other abilities. Its function is to stimulate the students through appropriate experiences so that the objectives set up by the curriculum will be achieved. *The curriculum then becomes a series of rich and guided experiences with some order of priority (progression) and directed toward the achievement of certain objectives.* It is education viewed from the standpoint of the means.

Since considerable confusion exists between other terms associated with the curriculum, it is best, at this point, to make distinctions.

A program of studies is a list of courses properly organized into learning units, intended to be pursued by pupils, and presumed to be the best method of attaining the objectives of the curriculum. The issue as to whether tennis shall be taught at all is a physical education curriculum question. At what grade level in the school career can it be taught most advantageously is a program question. A course is a limited functional element in the program of studies. A unit is an element in a course, and a lesson plan is an element of a unit being taught on a particular day.

Curriculum planning and development involves consideration of many interrelated problems to be faced when one seeks answers to the four questions raised at the beginning of this chapter. A few of these problems are worthy of citing in order to show their general nature. There is a problem of clarification of our general social and educational

philosophy, as well as the principles of physical education compatible with this philosophy. There is needed more understanding of the nature of our democratic society and of the demands on physical education resulting from the contemporary social problems. There needs be more attention to the nature and needs of human beings and to the potential contributions of physical education in the solution of the persistent problems of living in a complex industrial society. Another pertinent problem is that of having adequate knowledge of the nature of the learning process, of knowing how to select and organize learning experiences in accordance with the learner's abilities, needs, and interests. Finally, there is needed a program of testing and evaluating to assist learning and instruction; this program should also reveal degree of progress in attainment of the objectives of the physical education curriculum.

Besides responsibility for the constant improvement of his individual teaching, every teacher should feel some responsibility for improving the curriculum by participating in overall planning of the goals of education and the general curriculum pattern by which the faculty and citizens desire to achieve these goals. Under effective leadership by the school administrator who guides his staff in professional in-service study, many of the problems raised in preceding paragraphs will be under frequent consideration. Physical education teachers should make valuable contributions to this process since curriculum development is essentially the result of team effort. By its very nature it must draw upon many kinds of competencies.

### PRINCIPLES OF HUMAN DEVELOPMENT APPLIED TO CURRICULUM PLANNING

Many implications of the facts of human growth and development for the physical education curriculum have already been suggested.<sup>1</sup>

Life and learning call for a long series of tasks with resultant happiness, success, satisfaction, and reward, if the tasks are well-learned, or unhappiness, failure, and social disapproval if they are not learned. Each developmental stage finds the boy or girl challenged with what Havighurst refers to as certain developmental tasks of life which constitute healthy and satisfactory growth in our society. "A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to un-

<sup>1</sup> See pages 105 and 110.



*happiness in the individual, disapproval by society, and difficulty with later tasks.*"<sup>2</sup>

As children mature they find themselves in possession of new physiological and psychological resources. They increase in strength and stature; their coordination improves; they learn better to manage their friendships and other social relationships and otherwise learn to adjust to the cultural pressures that increasingly bear down upon them. The self-image or ego becomes more distinct and a factor in the subsequent development of the individual. At each stage of development new developmental tasks appear. At each stage, the function of the physical education curriculum is the aiding of children and youth to accomplish the present impelling task.

To illustrate the development-task concept more clearly, two contrasting age periods are indicated along with brief mention of some important tasks stated in broadly defined units.

### 1. *Developmental Tasks of Infancy and Early Childhood*

- (a) Learning to walk
- (b) Learning to take solid food
- (c) Learning to talk
- (d) Learning to control the elimination of body wastes
- (e) Learning sex differences and sex modesty
- (f) Forming simple concepts of social and physical reality
- (g) Learning to relate oneself emotionally to parents, siblings, and others
- (h) Learning to distinguish right and wrong and developing a conscience

### 2. *Developmental Tasks of Adolescence*

- (a) Accepting one's physique and accepting a masculine or feminine role
- (b) New relations with age-mates of both sexes
- (c) Emotional independence of parents and other adults
- (d) Achieving assurance of economic independence
- (e) Selecting and preparing for an occupation
- (f) Developing intellectual skills and concepts necessary for civic competence
- (g) Describing and achieving socially responsible behavior
- (h) Preparing for marriage and family life
- (i) Building conscious values in harmony with an adequate scientific world picture<sup>3</sup>

<sup>2</sup> Robert J. Havighurst, *Human Development and Education* (New York: Longmans, Green and Co., 1953), p. 2.

<sup>3</sup> *Ibid.*, pages 18, 111.

A good physical education curriculum is one that makes a maximum contribution to the performance by children and youth of their developmental tasks. It does this by accepting the developmental task concept as an aid in the discovery and the stating of the purposes of physical education in the school, i.e., the formulation of a philosophy of the correct "timing" or grade placement of physical education experiences. When the proper level of maturity is reached and cultural and social expectations have accrued, the individual is "ready" to achieve a certain task; the *teachable moment* has arrived. Teaching efforts, which at an earlier period would have been fruitless, give gratifying results if the teacher "strikes while the iron is hot." If a task is not achieved at the proper time, it is not likely to be achieved well, and failure in this task will result in partial or complete failure in the achievement of other tasks yet to come.

Basic skills such as throwing and catching, when not learned in early childhood, will not only impede skill development in middle childhood and adolescence but will likewise affect the social and emotional development, contingent in large measure, upon a rich fund of play skills.<sup>4</sup> To go back further, we can state that the first learnings in life are motor learnings and that the child perceives the world and objects in it in terms of perceptual data based on motor movement. The child learns up and down, left and right, inside and outside from perceptual data based on movement. Learning to read and to understand mathematical symbols is dependent upon the needed careful comparison of motor and perceptual data. It is indeed challenging to know that proper physical education of young children is a "developmental task" related to their ability to learn to read.<sup>5, 6</sup>

There are many types of outcomes sought through the physical education curriculum. Some of these may be categorized as information, general principles and concepts, understandings and meaning, mental skills, motor skills, habits, attitudes, ideals, interests, tastes, and appreciations.

In order to assist the reader in further refining the concept of developmental tasks and in applying this concept to progression and the selection of physical education curriculum experiences, a limited consideration of motor skills and the attitudes and knowledges related to them are indicated in brief form, using the genetic approach. Naturally, there is considerable overlapping when such broad age ranges

<sup>4</sup> See pages 101-102.

<sup>5</sup> Donald H. Radler and Newell C. Kephart, *Success Through Play* (New York: Harper & Row, Publishers, 1960).

<sup>6</sup> Newell C. Kephart, *The Slow Learner in the Classroom* (Columbus: Charles E. Merrill Books, Inc., 1960).

are employed. These statements are amenable to considerable refinement.

#### AGES SIX TO NINE

##### *Motor Habits*

1. Throwing, catching, pushing, pulling, twisting, rolling, jumping, climbing, dodging, skipping, hopping, starting, stopping, turning.
2. Eye-hand coordinations (bouncing, throwing, and catching balls; rolling ball toward object).
3. Eye-foot coordination (kicking and dribbling a ball with the feet).
4. Sense of balance improved (beam walking, hopping, stork stand).
5. Sense of timing improved by using fundamental movements to music, clapping, or drum beats.
6. Kinaesthetic perception improved (awareness of position of body parts in space).

##### *Attitudes*

1. Learns to take turns and to share.
2. Appreciates standards of achievement.
3. Learns to adapt to change.
4. Learns to persist and persevere in small difficulties; to finish a task.
5. Learns to play in groups.
6. Learns that games have rules and that "good sports" abide by them.
7. Satisfies a feeling of belonging and being wanted.
8. Learns that he cannot always win or have his own way.
9. Learns to try new things. Develops confidence.
10. Develops social sensitivity to the scorn of playmates when he argues, quarrels, or is selfish and non-cooperative.
11. Develops cheerfulness.
12. Develops a courageous attitude, yet one that is conducive to prevention of accidents.
13. Appreciates the need of group planning.

##### *Knowledge (Information put to use)*

1. Learns the rules and their purposes through group participation.
2. Understands that for group success "teamwork is necessary."
3. Develops some idea of growth and development. Muscles grow bigger and stronger with use.

4. Invents ways of playing games more successfully.
5. Understands that people can float (*swimming*).
6. Identifies the musical accompaniment for walk, run, hop, skip, and jump (*rhythms*).
7. Learns that practice leads to improvement.
8. Develops a concept of safety without fear.
9. Understands the difference between tenseness and relaxation.
10. Knows several individual and several group activities for after-school play.
11. Has some understanding of the relation of proper food to growth and strength.

#### AGES NINE TO TWELVE

##### *Motor Habits*

(Rather than indicate specific habits as such, these habits are integrated patternwise into more complex skills in the form of individual, dual, or team games, dancing and the like.)

1. Improved body control due to wider range and complexity of activity. Accuracy is emphasized to a greater degree.
2. Fund of basic skills and increased neural maturation favor improved coordination, speed, and accuracy, first by means of the less highly organized team games like modified soccer and volleyball and later, by more complex games and activities.
3. Increased kinaesthetic perception, improved musculature, and encouragement favor better posture in sitting, standing, and walking.
4. Active, safe, and supervised rough-and-tumble play satisfies need for vigorous activity and stimulates appetite and healthful fatigue.
5. Team games become of paramount interest about the middle of this age period. With better coordination many skills become automatic. Variety of skill requirements is stressed.

##### *Attitudes*

1. Learns the "give and take" of social life in games played according to rules.
2. Learns the etiquette of games.
3. Develops a feeling of satisfaction, security, and courage through adequate strength and skill.
4. Develops attitudes related to safety of self and others.
5. Learns to adjust to others who differ from himself.
6. Learns to feel "at home" in the group.
7. Accepts leadership and intelligent followership.

8. Knows the duties of game officials and appreciates the difficulty of their task.
9. Learns to establish standards for himself.
10. Learns to take "setbacks" and defeat without undue emotional upset.
11. Develops wholesome boy-girl relationships in coeducational activities.
12. Develops individual pride in his own development.
13. Learns to respect but not to fear the water.

*Knowledge (Information put to use)*

1. Learns that ability in most sports is dependent upon mastery of fundamental skills.
2. Learns that safety practices are important.
3. Learns to adapt himself in terms of his own capabilities.
4. Understands the values of outdoor activities, recreation, and play.
5. Knows the benefits of good eating, sleeping, and play habits.
6. Understands correct posture and simple body mechanics.
7. Understands the importance of group planning.
8. Understands the etiquette of various sports.
9. Understands strategic judgments in game situations.
10. Understands the difference in the basic rhythms.
11. Knows and can execute general camping skills.
12. Knows what kind of physical exercises may help maintain correct body alignment.

AGES THIRTEEN TO EIGHTEEN

*General Comment*

1. Adolescence is a focal point in human development and is therefore an important focal point for the education of the individual.
2. The word "adolescent" carries with it social and psychological as well as physiological implications.
3. The maximum growth of girls appears between 12 and 14 years of age and of boys between 14 and 16 years. The period from 12 to 14 years finds girls generally taller and heavier than boys of the same age and generally able to compete successfully in sports.
4. Boys' strength usually doubles from 13 to 17 years of age. At each age level the strongest boy is usually about three times as powerful as the weakest.
5. Boys now put into their games that degree of energy, skill, inventiveness, and sheer physical force required for build-

ing muscle bulk, physical courage, and endurance to meet the demands which the future will make of them.

6. Boys and girls of this age period are at a stage of development when cooperation, team play, and organization are prominent in their thinking and feeling.

### *Motor Habits*

Essentially, not different from ages nine to twelve. However, the patterns into which these skills become integrated become much more complex.

### *Attitudes (Expressed primarily by definitive behavior)*

1. Willingness to engage rather objectively in self-appraisal and to act on the basis of knowledge of one's assets and liabilities.
2. Self-sufficient, "stands on his own feet," makes his own decisions and choices.
3. Is free from guilt feelings as a result of understanding the growth cycle and rapid physiological urges and changes taking place during puberty and adolescence.
4. Accepts responsibility and leadership.
5. Develops individual and social self-confidence.
6. Carries through activities to a point of mastery and achievement.
7. Appreciates clean competition and fair play.
8. Feels that he has contributed in some way to benefit the group in organized activity.
9. Develops pride in growing ability and achievement.
10. Loves the outdoors and values outdoor activities.
11. Is able to accept own limitations without withdrawing from the group.
12. Appreciates the significance of individual differences.
13. Develops social sensitivity and courtesy.
14. Sacrifices his own personal wishes and desires for the good of the group.

### *Knowledge (Information put to use)*

1. Understands what is involved in "growing up," physically, psychologically, and otherwise, and that changes during adolescence are normal processes.
2. Understands the biological and environmental bases of individual differences.
3. Understands how personality evolves and why people may like or dislike him.
4. Understands the elementary principles of the physiology of exercise.

5. Recognizes that the group can achieve where the individual alone cannot.
6. Learns to think and act on the spot in the heat of a game.
7. Understands the strategy—the “why”—of the best methods of attack and defense in games.
8. Understands the proper selection, use, and care of sports equipment.
9. Knows the importance and relationship of skill, strength, speed, and endurance in relation to physical efficiency.
10. Knows the causes of physical anomalies such as faulty posture, ingrown toenails, corns, bunions and how to prevent them.
11. Knows how to officiate in several sports.
12. Understands and observes safety precautions in activities and using equipment.
13. Understands and is able to apply the principles of relaxation.

### *The Question of Motives*

Despite what the teacher or parent does in the way of controlling the activities and the environment, learning, to a large extent, depends on the student's own pattern of meaning and values in relation to his established goals. Successful method by the teacher or parent implies that pupils are satisfying needs that are important to them.

When we motivate pupils we create within them a certain psychophysical state or condition of disequilibrium that results in efforts on their part to do something to make the necessary adjustments to satisfy the motives we have implanted.

Different motives operate at different age levels. Children learn more readily when they are healthy, well adjusted, mature enough, and interested. *Readiness* refers to the drive to accept learning experiences or to the stage of development at which the student is most able to profit by instruction. Readiness to learn is important at all levels.

#### POSSIBLE MOTIVES OPERATING IN PHYSICAL EDUCATION (AGES 6-12 YEARS)

1. Love of activity, motion, hunting, climbing, chasing, fighting.
2. Idealizes others, wishes to emulate and be like those he loves.
3. Highly imaginative, curious. Will try many things.
4. Function pleasure. Pleasurable sensory feeling and sheer joy out of use of muscles and in testing budding capabilities.

5. Expression of independence and self-assertion. Is *daring and adventurous*.
6. Pride in performance. Pride in growth and development.
7. Pleasurable feeling from a sense of mastery and achievement.
8. Group status and social recognition because of values placed on health, physical development, and game skills in a given culture.
9. Rational understanding of the relation of health and physical education practices to the satisfaction of many of the motives implied above. (This is a gradual progressive process starting with the nursery school.)

#### POSSIBLE MOTIVES OPERATING IN PHYSICAL EDUCATION (AGES 13-18 YEARS)

1. Desire to understand the scientific bases (the "why") behind health and physical education activities.
2. Interest in growth and development and physiological changes of puberty.
3. Interest in impressing opposite sex.
4. Desire to be liked by classmates; sense of belonging.
5. Desire for group status and acceptance of prescribed values of the group or gang.
6. Seeking for self-discovery, self-testing, self-realization, and self-assertion.
7. Satisfaction of desire for mastery and achievement.
8. Affection for those whom one admires and respects.
9. Excitement, adventure, and new experiences.
10. The sheer joy of the game itself; the wholesome pleasure, richer personal contacts, and friendships which it makes possible.

We see human development as a succession of interrelated events. In the natural process of growth, new potentials emerge. These potentials are used in various ways in experiences in the gymnasium, pool, or on the playing fields. As the pupil attempts to use these emerging potentialities, he constantly changes his ways of interacting. As he moves successfully from one "developmental task" (with the aid of curricular experiences under trained leadership) to the next, new capacities emerge and are reintegrated at increasingly more complex levels. This process goes on from birth, hence we say that development is the expression of heredity (potentialities) in a favorable environment and that an understanding of child growth and development is basic to sound curriculum planning.



## THE COMPONENTS OF GOOD CURRICULUM DESIGN

A component is something which serves as one of the parts of a whole; a part, constituent, or ingredient. A design is a plan or pattern used to produce a complete unit; in this case, the curriculum as a whole.

A curriculum design shows the pattern of relationships among the components of the physical education curriculum which aids us in making more consistent decisions about the purposes of physical education in American democracy, the nature of the child to be educated, how to select or organize learning experiences to achieve educational purposes, and how to evaluate in order to determine the degree to which we have achieved our educational purposes.

A sound curriculum cannot be developed without a guide or blueprint. The design of a physical education curriculum involves a number of important components which should be seen in proper prospective and relationship. Stated in the form of questions for which we must have answers, they fall under the following headings:

### 1. SOCIAL PHILOSOPHY

What are the social needs of American democracy? What physical, economic, and social conditions are necessary in order to develop in children the mental, emotional, and spiritual qualities essential to individual happiness and to responsible citizenship? What present socio-economic trends and forces have implications for the physical education curriculum?

### 2. EDUCATIONAL PHILOSOPHY

What are the ultimate values and principles that determine our thinking and action in education? What is the nature of the individual at various levels of maturation and of the preferences, choices, values that should guide us in the selection and organization of learning experiences for students? In what directions should we try to change students? What are our objectives?

### 3. THE CONCEPT OF NEEDS OR DEVELOPMENTAL TASKS

What are the basic personality needs and developmental tasks of young people that give strong directional force to them at various developmental levels and how can these be adequately provided for in curriculum planning and development? How can we make physical education functional?

#### 4. CURRICULUM CONTENT OR ACTIVITIES

Since the various areas of curriculum content (experiences) represent the very heart of the curriculum and form the *means* of education, we naturally ask, "what kinds of experiences are best suited to achieve the objectives of the curriculum?" These may be exemplified by classifying activities into areas of content of instruction as follows:

- (a) *Games, sports, and athletics*: Individual activities such as archery, golf, track and field events, and bowling; dual activities such as tennis, badminton, wrestling; low organized games, "lead up" games, and team games such as football, hockey, and baseball.
- (b) *Rhythmic activities*: athletic, clog, square, tap, folk, social, and modern creative dance.
- (c) *Aquatics*: swimming, life-saving, diving, sailing, boating, canoeing, and similar activities.
- (d) *Self-testing activities*: tumbling, stunts on the apparatus, pyramid building, achievement tests in track and field events.
- (e) *Camping and outdoor activities*: boating, cycling, canoeing, hiking, cookouts, skating, skiing, skin and scuba diving, tobogganing, and equestrian activities.
- (f) *Body-building, corrective, and preventive activities*: adapted physical education, fundamental movements, body mechanics instruction, special conditioning or developmental exercises, therapeutic exercises, and games.
- (g) *Social-recreational activities*: picnicking, play days, mixers, skating parties, social activities of the girls' athletic association, co-recreational sports activities.

#### 5. EDUCATIONAL METHOD (ORGANIZING LEARNING EXPERIENCES)

How can we best organize learning experiences for effective learning? How can we translate our educational philosophy into teaching procedures?

#### 6. PROGRESSION

How can we solve the problem of grade placement and progression? How can we determine the order of what we teach?

## 7. EVALUATION OR APPRAISAL

How can we appraise or evaluate adequately the quality of the development of pupils? How can we determine the extent to which we make good on what our curriculum objectives promise in the way of change in pupils?

Some procedural steps in developing a curriculum guide will be considered in the chapter to follow on administration. At this point, it is relevant to point out that "courses of study" are now referred to as "curriculum guides" or "teaching guides." In former days, courses of study were fixed and the function of the supervisor was often to make sure that each teacher was following the course of study with exactitude and was teaching the prescribed material at the time it was supposed to be taught. The result was a certain rigidity which stifled the creativity of an imaginative, able teacher.

The modern concept of a course of study is that it should be a guide not a requirement; that it should be drawn up in large units and interpreted by the teacher as an aid; and that it should be adapted to the pupils under her or his direction. In this way, the course of study becomes a source book embodying essential instructional materials and techniques. Its philosophy will indicate the direction in which the growth of boys and girls should proceed, while its scope outlines the areas of curriculum content and places them at seasonally appropriate periods such as early fall, late fall, early winter, late winter, early spring, and late spring. It gives raw materials of instruction in the form of suggested units of instruction. Finally, it suggests methods of evaluating or appraising pupil progress in relation to the specific objectives of each unit.

Course-of-study preparation should be looked upon as a device for in-service education of teachers under the supervision of a curriculum specialist. Each area of curriculum content, e.g., aquatics, gymnastics, rhythmical activities, should be the responsibility of a well-trained committee of content specialists. These specialists should be responsible for the detailed technical preparation of the written content of their respective part of the course of study.

The stereotype of nothing but football, basketball, and baseball as a physical education program, with its repetition of content and little progression year after year, leaves the program barren and suspect as educational activities. On this basis, it scarcely merits a place in an educational curriculum. What would parents think of an academic program which featured the *same* American history or algebra taught for four years in a row?

Ways must be found to broaden the program, introduce new

Philosophy, Educational Philosophy, Development-Task Concept, Activities, Educational Method, Progression, and Evaluation. Modern teaching is best done by the use of a curriculum guide. This gives appropriate advance planning with allowance for creativity and ingenuity on the part of the teacher.

## THOUGHT PROVOKERS

Illustrate the application of the following principles or generalizations to some specific physical education situation.

1. Curriculum planning calls for cooperation between teachers and subject-matter specialists.

2. For the present, we have no choice but to design our curriculums to meet the needs of all children and youth.

3. Experiences should contribute to general as well as to specific objectives.

4. For continuity and efficiency of learning, proper sequence of content, ideas, and skills is imperative.

5. A subject is not learned completely in isolation, but as a function of other subjects.

6. A curriculum must be a growing, living thing because of the changing pattern of responsibility of the school in a changing society.

7. The curriculum is represented by the experiences which children undergo.

8. Motivation is central in the curriculum because one learns those things which are necessary for adjustment in his efforts to satisfy basic personality needs.

9. The essential task of the teacher is to help students secure the goal resources by which they may achieve goal satisfaction.

10. A good curriculum is balanced in that it provides stimuli for many categories of desirable behavior.

11. The nature of the growth process demands that learning experiences be planned for progression, that they increase in complexity and lead directly to succeeding experiences.

12. A curriculum which ignores the principles of growth and development from a genetic point of view is bound to result in ineffective education.

13. Curricular experiences are not something of intrinsic value; they are means, not ends.

14. Good physical education requires progressive planning.

15. "No program of physical education can be recognized as good until the principles upon which it is based are known."

16. We should be as interested in what the basketball game does to Johnny as we are in what Johnny does to the basketball.

17. For the selection of curricular experiences best suited to attain physical education objectives, criteria to govern this selection are needed.

18. Method, how we organize learning experiences, affects what pupils

learn, how much they learn, and the degree to which they retain what they learn.

19. The curriculum should have unity, continuity, and relationships.

20. A sound physical education curriculum can be planned and developed only with an adequate guide or blueprint.

21. The curriculum should represent that body of experiences by means of which we translate our social and educational philosophy into teaching procedures.

22. The function of the curriculum is to stimulate the students through appropriate experiences so that the objectives of the curriculum will be achieved.

23. Curriculum developers should recognize the importance of relating the needs of children to those of society and of outlining suggestions as to the implications of this relationship for the physical education curriculum.

24. Curriculum development by its very nature is a cooperative process.

25. Without curriculum organization, learning experiences are apt to be isolated, haphazard, and even chaotic.

## ORIENTATION READING

Alcorn, Marvin D. and James M. Linley, *Issues in Curriculum Development*. Yonkers-on-Hudson, N.Y.: The World Book Co., 1959. A collection of significant and timely articles culled from periodical and pamphlet publications of the last five years. They depict special issues and recurring curriculum problems in education.

Cassidy, Rosalind, *Curriculum Development in Physical Education*. New York: Harper & Row, Publishers, 1954. A guide for developing physical education program materials in the redirection of the curriculum.

Cowell, Charles C., "Some Basic Beliefs Concerning Physical Education," *The Physical Educator*, December, 1954, pp. 99-100. Suggests some philosophical bases for curriculum planning and development.

——— and Helen W. Hazelton, *Curriculum Designs in Physical Education*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1955. From the nursery school through the university, stresses in progressive steps the integration of the unique objectives of physical education with the summary intention of general education.

Smith, B. Othanel, William O. Stanley, and J. Harlan Shores, *Fundamentals of Curriculum Development*, rev. ed. Yonkers-on-Hudson, N.Y.: The World Book Company, 1957. A balanced presentation of all areas of curriculum development. Stresses sociological basis of school program.

# 10

## ADMINISTRATION: DIRECTING EFFORTS TOWARD ACCOMPLISHING OUR EDUCATIONAL PURPOSES

*School administration does not exist for itself; it is only a means, not an end, and must always be a servant of the pupil.*

WARD C. REEDER

THERE ARE HUNDREDS OF DETAILS ASSOCIATED WITH RUNNING A SCHOOL system for which someone must be responsible. The purpose of school administration is to assure efficient management by seeing that each part of the organization bears a proper and harmonious relation to each other part, so that each part fits nicely into its place in the whole. As implied by Dr. Reeder's epigram at the top of this page, the sole purpose of effective school administration is to facilitate the giving of instruction; to enable the teachers to do a better job of teaching. Administration lays the rails so that the train marked "Education" may go forward to its objectives. Good administration provides the conditions that will enable the pupils to profit best from learning situations by directing the efforts of the personnel involved toward the accomplishment of chosen ultimate objectives. Administration is responsible only indirectly for instruction but it must set the stage by providing space, time, equipment, supplies, and leadership so that the education process may go forward. In other words, the term, administration, is

roughly synonymous with management. It is concerned with getting work done.

Thinking specifically of physical education, we shall deal first with rather broad generalities and then come to five distinct aspects of administration and deal with each one as it applies to physical education. Since one understands the parts of anything better when seen in their relationship to the whole, we shall think first in terms of the school system as a whole, then of an individual school within the system, of a class within the school, and shall finally make brief reference to a teaching unit within a class.

Generally speaking, school administration represents a group of functional activities carried on by administrators, represented by such non-teaching personnel as the superintendent of schools, the school principal, and various specialist supervisors. The last category includes the supervisor of physical education. In general, administrators perform these functions:

1. Plan a system which carries out the policies of the board of education. Policies are guiding rules for action toward desired goals. They are basic agreements made after examining all of the most valid evidence, pro and con, available. A policy represents some recognizable attitude, purpose, or set of values which has more or less crystallized after all available data have been examined. Physical education and athletic policies, then, are based upon certain facts and principles and represent what is deemed best under the circumstances. Administration provides the physical plant, the equipment and supplies, the budget, and the educational conditions for the *teacher* to do the best job in carrying out educational policies which are of prime importance. These policies do the following things:

- (a) Help delineate duties and responsibilities.
- (b) Provide a reflection of the philosophy of program administrators.
- (c) Provide a basis for making decisions about future occurrences of situations in the program.
- (d) Aid the administrator in meeting legal requirements.
- (e) Aid in avoiding misunderstandings among personnel or between personnel and people outside the program.
- (f) Help to secure better cooperation of staff members.

2. Select the supervisors and teachers, coordinate efforts to fulfill the adopted plans in terms of the policies agreed upon, and see that these policies are in continuous effective operation.

3. Provide channels of communication through which information flows uninterrupted from the field to central office.

4. Provide the organization which makes possible the coordination of the efforts of all personnel, individually and collectively (as in departments), to work together for continuous improvement of the school system as a whole.

The administrative process in physical education is characterized by five different kinds of activity: planning, organizing, directing, coordinating, and appraising or evaluating. While administration is a unified thing and not a number of separate and independent elements, each part derives its nature in the relation that it bears to each of the others. With this point in mind we shall proceed to examine each part with the idea of its interrelationships.

## *The Components of Administration*

### PLANNING

Decision-making in physical education requires giving thought to the problem at hand. Planning must precede performance; a budget must be planned before it is expended. One can hardly plan a curriculum, a course, a unit of study, or even a lesson without some thought of how the plan may be executed. One must think about the time, the equipment, the supplies, and the leadership required to put the plan into effect, and the possible results of its use. Planning, as one kind of activity which characterizes the administrative process, interacts with other activities of organizing, directing, coordinating, and appraising to produce the total function of administration.

To develop a physical education curriculum, program of studies, or a course for children is to plan for activities involving physical, intellectual, and social components compatible with our basic social and educational philosophy. We must look ahead through a period of years and in advance, make choices of experiences to be devised, of things to be learned, of skills to be acquired. Planning is dynamic, adaptable, and stable. It provides for making changes without destroying the system. Democratic society is by nature a planning rather than a planned system. Authoritarian or planned systems are rigid rather than resilient and resist change. They lack the orderly process of adaptation.

Since planning anticipates future situations to be met, the physical education teacher must be conscious of immediate and remote objectives; and as a long-range planner (such as a supervisor or director of physical education), he must be a person of more than ordinary vision and perception.

Planning is preparation for action, getting ready to perform a task.



It is a means to an end which we employ when we face a situation too involved to be disposed of offhand. Planning in physical education is an intellectual activity indicative of orderliness in thinking and action. It involves the use of many facts and principles stressed in this volume. It requires knowledge of the science and philosophy that brought physical education into existence and developed it, knowledge of the laws of human nature by which children live, develop, and learn, and knowledge of the whole range of elements necessary to set up programs which achieve the objectives of physical education.

Since planning is a "preparation function" it must:

1. Indicate clearly the objectives to be sought and the conditions and material needed for properly carrying out the plan.
2. Identify, define, and describe the basic factors essential to the solution.
3. Indicate the methods, facilities, equipment, supplies, and leadership to be employed.
4. Specify the criteria to be employed in judging the outcomes.

A specific point that should be emphasized because it is so often overlooked is that research is basic to planning. There can be no effective planning unless the results of research are taken into account. If the needed facts do not exist, research must be performed to make them available. Finally, administration is democratic when those asked to carry out policies have had some hand in the formulation of policy. Democratic procedure makes teachers and pupils *participants* rather than *reactors*. It calls for planning *with* rather than planning *for* the group. The group development of an idea, rather than merely its acceptance or rejection, serves the democratic principle.

## ORGANIZING

Organization as another element in the administrative process is concerned with dividing the responsibilities among the superintendent, principal, teacher, student leader, and class members in order to properly adjust their relationships so that the objectives of the curriculum, the course, or the unit may be achieved without unnecessary loss of time and energy.

In a school system or in an individual school, many persons must work together to produce a good physical education program. Organization requires an arrangement of individuals whereby each member may contribute to the development and improvement of the program, in line with purpose and procedure, so that all talents and energies, in joint activity, may be best utilized. Organization is people. People are

so organized (posted) in relationship to one another that the flow of energy results in effectively achieving the common goal of the school or department. Organization is the element that makes cooperation possible and that causes staff members to work cooperatively with a plan. It simplifies matters if we envisage a school system with a director of physical education, supervisors of the elementary and secondary school physical education programs, a director of interscholastic athletics and an intramural director in each secondary school, as well as special teachers of physical education, classroom teachers with physical education responsibilities at the elementary level, and student leaders at both the elementary and secondary levels.

Since organization deals with human relationships, some organizational pattern must be worked out if all of these people are to work together in ways best suited to their capabilities. The secret, of course, is harmonious relations based on common purposes and sound coordination of the activities of all staff members and pupils. The administrator has to determine and assign duties to people in order to fix responsibility and to achieve specialization, through subdivision of work, so that the total effort of all people in the physical education department will help accomplish its objectives.

To visualize the organization of a physical education department in a school system or a given school, an organizational *chart* is important so that each individual sees the mutual relationship between his own duties and those of other members of the organization. A good chart of a system or department is essential to analysis, clarification, and understanding of ways that the organization might be improved. The chart acts merely as a guide to the personnel involved, for care must be taken that things that should be kept elastic are not too firmly crystallized.

For example, the organizational chart of our American Association for Health, Physical Education and Recreation depicted on the following page represents the organization in 1960. Since then, several significant changes have been made. Driver education is no longer an official part; the division is the safety education division. Some changes have also been made in the headquarters staff.

If educational personnel are to discharge their proper functions without duplicating or working at cross purposes with their colleagues, and if all understand their respective parts in the educational venture as a whole, they will be able to devote their full energies to their tasks with the clarification that an organizational chart can give.

## DIRECTING

A leader is one who leads. A director is one who directs. When we speak of a physical education department as under the *direction* of the director of physical education we refer to all of the various activities of that office and particularly to the power of that office to guide and control the department. The title, director of athletics, implies that he is in charge of the total project, is responsible for seeing it through as a whole regardless of the number and kind of activities necessary to do the job. Things move by his will and under his direction. In this case, we think of the administrator as director. All of the planning, organizing, and coordinating are merely potential forces until direction sets them into action. Planning, for example, is but the early stage of direction.

Direction implies power and authority. The people do not know how to run a school system or a department of physical education, so the school board, by law and with approval of the people, enacts rules which empower trained personnel to do it for them. The democratic director does not function as someone superior or entirely independent. He is a cooperating partner in an educational enterprise. Direction must have power to compel, but, except to meet urgent needs, compulsion should seldom be necessary in educational administration. The ideal physical education department should be as self-propelled as possible, since self-imposed tasks are usually the best performed. Those teachers who are moved to action by their own purpose, intelligence, and sense of responsibility are, by far, the best guarantees of successful teaching.

Good direction sets all hands to the task and gives everyone a sense of being part of the team. This is true regardless of whether the directing is done by the superintendent, the supervisor, the physical education teacher, or the student leader working with a squad in the gymnasium.

## COORDINATING

Coordination and cooperation are quite similar in connotation. The administrator as a leader must coordinate not only the jobs but also the people who do the jobs. Every physical educator realizes the many factors involved in coordinated body movement, as exemplified in the harmonious adjustment or functioning of muscles involved in producing complex movements such as "shooting" a basket in basketball, or doing an "upstart" on the horizontal bar. Applied to administration, we might liken the individual muscles to the effort of a number

of individuals who lend their strength to a group enterprise through their own free will. The actions of a number of individuals representing a school, department, or a class are synchronized and unified. *"Coordination, therefore, is the orderly arrangement of group effort, to provide unity of action in the pursuit of a common purpose."*<sup>1</sup> In lifting a heavy object, the efforts of several lifters must be coordinated, they must act together. With some lifting alternately, there would be no unity of action and no positive results.

In a team game of any kind, the primary object is to win. Success depends on coordinated effort. The efforts of the various players, each with a specific task in each situation, exemplify real functional differentiation, yet their individual efforts must be synchronized or coordinated. Physical education has given that splendid word teamwork to practically every situation where people are working together for a common purpose. How much collective harmony would the leader get out of a symphony orchestra without coordinated effort? The primary way to coordinate an enterprise is through the creation of a desire on the part of individuals to achieve a common purpose.

Failure to achieve a coordinated physical education department results in ineffective learning, poor staff morale, and possible public criticism, not only from taxpayers but from pupils as well. To achieve good coordination the administrator must:

1. Define clearly the ultimate and the specific objectives of the physical education program.
2. Understand the individual motivations of the teachers and pupils concerned.
3. Provide a formal organization within the department which will facilitate coordination of effort among supervisors, teachers, and pupils.
4. Develop channels of communication up and down (dealing with teachers at various grade levels) and horizontally (with several teachers at the same grade level).
5. Employ democratic practices such as establishing policies with the agreement and consent of the governed.
6. Use committees that cut across grade, age, and school levels.

A well-coordinated department of physical education will find funds available for equipment and supplies, indicating coordination between budget and instruction. Children will make good progress in physical education because the curriculum is suited to their needs.

<sup>1</sup> James D. Mooney, *The Principles of Organization* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1939), p. 5.

Teaching is good and staff and student morale is high. Teachers are cooperating with the research staff in developing instruments to measure the results of instruction with the idea of improving it. The school library provides a shelf of books dealing with physical education activities for pupils, and the system of reporting students' progress to pupils and their parents includes reports on the several phases of physical education. The physical education teachers and the guidance supervisors work in close harmony in an effort to improve personality guidance and to achieve a better understanding of pupils as personalities. In drawing up the school's activities calendar for the year, care is taken to consider the needs of all interested groups. The Glee Club recital does not conflict with a gymnastic meet. The Leaders Club is not scheduled at the same time as the Hi-Y, or the football banquet on the same night as the Girls Club roller-skating party.

The preceding are rather common examples of good coordination, but in any school system the problems of coordination represent a major concern in all departments. All departments and their specialized services are integrated to form a unified coordinated system of education. Physical education is a part of the total educational venture. We must study physical education as an important part as well as its relationship to other parts. Coordination means the use of devices to hold the parts of the school system together. This is an important task for the administration.

## EVALUATION

Evaluation or appraisal assumes that actions can be measured and that the resulting measurements can be judged against valid criteria or sets of standards or values. Obviously, the concept of evaluation as an element in the administrative process starts with the identification and establishment of educational goals, values, standards, or objectives. Evaluation should result in the ever-increasing clarification, specification, and integration of educational objectives. It should result in greater consideration of the individuals to be educated, as well as the methods employed, and the inspection of the performances and achievements of pupils. The chief purpose is to obtain evidence of growth and development towards realizing the objectives of the physical education program.

At this point, we are dealing briefly with evaluation in broader administrative terms by means of which an objective, reliable and valid record is sought of the administrative progress made by physical education department as its personnel seeks to achieve its educational

purposes. In the succeeding chapter, evaluation will be applied specifically to appraisal of pupil progress by means of the curriculum.

If one were writing an annual report of the physical education program for the benefit of the board of education and the public, certain features of evaluation would be involved if the report were to be objective and valid in ascertaining and reporting progress or regression. Administratively, evaluation is concerned with appraisal or judgment of all the *procedures* employed to accomplish the objectives of the program. One cannot evaluate administration apart from program, since administration is one of the resources for program; therefore a physical education program cannot be evaluated without studying the way it is administered.

The problems involved in the administration of physical education are numerous. The process involved in evaluation, making judgments, and coming to decisions is only one of the many. In connection with administrative planning, the evaluator might ask, "To what extent are staff members participating in policy formulation?" In public relations, he might ask, "To what extent is a concerted attempt made to interpret a broad concept of physical education to the faculty, students, administration, and the general public?" In connection with personnel, he might ask, "To what extent is the leadership capable of developing group unity and bringing out the capacities of staff members for participation?" or "To what extent is continuing in-service education stimulating professional growth, creative thinking, and improvement of service to students?"

In addition there are problems of class size, teaching, and work load, requirements, credits, curriculum planning and development, intramural and interscholastic sports, budget, class and time schedules, facilities, equipment, guidance and counseling, health examination, safety measures, coeducation, records and reports, and the program of research. These and numerous other problems challenge the evaluator to furnish some tangible evidence of the processes employed in administration.

Evaluation is a continuous process whereby the purposes, the programs, and the evaluative procedures form a continuous spiral as the physical education program moves toward its goals. Instruments must be created for analyzing experience and collecting data and these require technical skill in construction. Surveys, questionnaires, tests, rating scales, observations, and interviews are needed. Through their use, evaluation should come out of the actual experiences of alert, inquiring, and analytical people working together on a cooperative and democratic basis in the process of rethinking administrative procedures in the interest of a more effective physical education program for all.

## SUMMARY

School administration has the purpose of handling school affairs in such manner that there is efficient management in all the various operations. It does this by seeing that all parts of the school work harmoniously, and it must, therefore, have cognizance of all aspects of school operations. Administration exists in order that there may be good instruction, with all the multiplicity of arrangements which this implies. In general, school administrators provide a system for carrying out policies of the board of education, for selecting teachers and supervisors, for arranging proper channels of communication, and for coordinating all facets of a program designed to cause learning to take place.

Administration in physical education follows the basic principles of general administration. The details are all that differ, but the details can, of course, make or break the entire program. It is incumbent upon any physical education administrator to know the objectives of physical education and to know how to manage in order to attain such objectives. He may do this by making specific applications of five general features of administration to his own area of concern. These areas are planning, organizing, directing, coordinating, and evaluating.

The fact that the five elements of administration are given names which indicate continuing action (planning instead of a plan) has implication for flexibility—the avoidance of authoritarianism. In planning programs of physical education, the process implies inclusion of teachers, supervisors, and pupils in continual planning. In organizing, it is necessary to consider allocating responsibilities to people. The organization chart is an excellent device for depicting personnel relationships, and it is best used as a base for the explanations of the involved interrelationships which do not all appear on the chart itself. In directing, the good administrator will utilize democratic procedures in guiding and controlling the factors involved in providing sound physical education in the school. Directing implies the power of compulsion, but with sound leadership, only an emergency will call for use of this power. Coordinating is the arrangement of group effort for a common purpose. In physical education, this calls for enlisting cooperation of coaches, teachers of physical education, health teachers, and intramural leaders to arrange non-conflicting schedules, to share facilities and equipment, and to work unitedly to attain the objectives of the over-all educational program. Evaluating is a desirable kind of "looking back." It takes stock of the progress toward goals and of the degree to which the program has attained its objectives. Some of the tools of evaluation are achievement tests, surveys, observations, and records. In order to draw conclusions from evaluating there must be criteria selected, and objectives are commonly used as some of these criteria. The conclusions from evaluating are determinants for changes, revisions, additions, or deletions as subsequent applications of the other four areas of administration are made.

It must be remembered that administration is never an end in itself; it is an essential means to an end. The end is the learning which is derived and on which the future of the learners depends.

## THOUGHT PROVOKERS

Some general principles concerning the several aspects of the administrative process appear below. Interpret them and show how each may be applied to specific physical education situations.

1. Course objectives should be established by cooperative planning.
2. The *planning* physical education department is dynamic, adaptable, and stable because of its ability to make changes without destroying the system.
3. Planning saves time, effort, and money.
4. Planning *with* teachers and pupils is greatly superior to planning *for* them.
5. Planning should select among alternatives, explore different possible paths, and identify possible outcomes before a group commits itself to definite action.
6. The first decision calls for not one plan but several.
7. The first step in planning is to specify the objective sought and the conditions that are essential for the proper execution of the plan.
8. Physical education planning should be recognized as one aspect of the general education problem of community, state, and national planning.
9. Planning in physical education should be organized to utilize the services of specialists and yet avoid the possibility of domination by them.
10. Teachers should participate in curriculum planning, for the only curriculum that will be taught is the one that represents the knowledge, skill, viewpoint, and interest of the teacher.
11. The physical education administrator should see that a well-balanced program of activities is available.
12. Leadership qualities are best learned by example.
13. The administrator is responsible for the development of the philosophy of physical education by which a department operates.
14. The administrator should encourage the in-service and continued professional growth of his teachers.
15. The administration should develop integration between the physical education activities of school and community.
16. Organization is people. If the administrator ignores people, his organization must fail.
17. Organization should be the framework of every physical education staff moving toward common objectives.
18. A system of organization will not operate smoothly when fundamental principles of human relations have been ignored in its construction.
19. A good organization chart provides many bases for common understanding among personnel.



20. Participation leads to democratic organization.

21. Direction, as a phase of the administrative process, becomes a separate phase only at the point of applying power but not in the planning, organizing, coordinating, and evaluating phases.

22. Authority and responsibility should not be divorced.

23. Direction sets the forces of planning, organization, and coordination into action.

24. Although the physical education teacher's main duty is to instruct, he organizes pupils and materials, directs and controls activities, and assists in many general processes of administration.

25. Research has an important function as a help in educational planning.

26. Direction may at times have to compel.

27. There is a direct relationship between cooperation and coordination.

28. Coordination is a necessity in order to achieve efficiency and stability of operation.

29. Unification of effort is impossible without good coordination.

30. Every educational process is a series of sequential operations and actions requiring coordination.

31. Sound organization is conducive to easy coordination.

32. Evaluation begins with the identification and definition of the organization's purpose.

33. Evaluation should be considered an integral part of the total administrative process.

34. Self-evaluation can be applied to groups working as units as well as to individuals.

35. Evaluation helps faculties summarize the results of having worked together.

36. Every administrator should furnish tangible evidence of the effectiveness of the administrative processes he employs.

37. Evaluation should be a continuous *action* process; it should be synonymous with action.

## ORIENTATION READING

Bucher, Charles A., *Administration of School Health and Physical Education*, 2nd ed. St. Louis: The C. V. Mosby Co., 1958. Concerned with administrative problems related to school programs of health and physical education as confronted by the teacher in the field.

Forsythe, Charles E., *Administration of High School Athletics*, 4th ed. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Discusses policies, contest management, equipment, awards, safety, intramural and inter-scholastic athletics, and current trends of same.

Hagman, Harlan L. and Alfred Schwartz. *Administration in Profile for School Executives*. New York: Harper & Row, Publishers, 1955. Rec-

ognizes the common elements in all fields of administration and identifies basic principles especially pertinent to schools.

- Havel, Richard C. and Emery W. Seymour, *Administration of Health, Physical Education and Recreation in Schools*. New York: The Ronald Press Company, 1961. Indicates administrative interrelationships among the three areas and provides analyses of responsibilities for personnel, budget, facilities, and equipment.
- Howard, Glenn W. and Edward Masonbrink, *Administration of Physical Education*. New York: Harper & Row, Publishers, 1963. Views the administrator of physical education as a fully responsible member of the educational administration of schools and colleges and treats physical education as an instructional program.
- Sears, J. B., *The Nature of the Administrative Process*. New York: The McGraw-Hill Book Company, Inc., 1950. Based on the results of an inquiry into the nature of the administrative process and resulting in a sound underlying philosophy of administration.
- Voltmer, Edward F. and Arthur A. Esslinger, *The Organization and Administration of Physical Education*. New York: Appleton-Century-Crofts, Inc., 1958. Being based on the job analysis of physical education teachers and athletic coaches, the content balances the ideal with the practical.
- Zeigler, Earle F., *Administration of Physical Education and Athletics: The Case Method Approach*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1959. Employs twenty-seven different cases including twenty-one different problem areas confronting administrators.

# 11

## EVALUATION: APPRAISING AND RECORDING STUDENT PROGRESS

High sounding objectives filed away in our course of study have value only when we appraise the progress that we make toward them.

HENRY P. SMITH

THE DETERMINATION AND APPRAISAL OF WHAT HAS HAPPENED OR WHAT is happening to boys and girls as a result of school experiences is known as evaluation. Evaluation is important in the modern school as a means of discovering the points at which individual pupils need assistance. It is also important as a means of discovering the effectiveness of the physical education program as a whole. Unfortunately, we think of testing as a basis for grading pupils, as a means of determining promotion or failure. These are not the significant purposes of an adequate testing program.

Evaluation seeks to determine the quality and amount of student development. It has a broader connotation than measurement in appraising the consequences of one's teaching efforts. Evaluation is a qualitative process dealing with a wide range of human activity, such as achievements, attitudes, and interests. It is the process of "stock-taking." Appraisal of all outcomes of learning, both quantitative and qualitative, is included in the concept of evaluation. The evaluation of physical education practices must be in terms of their effects. As

Lockhart would put it, "Results must be planned for; to be convincing, they must be shown."

If we really heeded the five requirements for a successful physical education program, we would lessen our present trend toward confusion and move in the direction of more consistency of action by insisting upon:

1. A sound philosophy and measurable objectives.
2. A realistic curriculum which translates the philosophy into experiences to achieve the objectives.
3. Good class organization and teaching methods to implement the curriculum.
4. An evaluation program to appraise achievement.
5. An interpretation (public relations) and reporting program to inform the public.

Parents, pupils, taxpayers, and school administrators should insist upon results from a physical education program. To indicate results, some means of measuring the change in the status of pupils is imperative. Sometimes physical education programs are difficult to "sell" because the claims for them are difficult to prove.

While evaluation seeks to determine the quality and amount of student development and is the more inclusive term, measurement deals with quantity, with the determination of amount, which becomes the principal focus. How much does the child know? How far or how high can he jump? What is his grip strength? Although measurements are the raw data for evaluation, the two terms are not synonymous. For evaluation, tools, techniques, or instruments are needed. These range from standardized tests to observational judgments.

The first step in evaluation is to formulate in clear and understandable fashion the major purposes of the physical education program. We must indicate the changes in pupils we expect to facilitate. We must ask, "What do we expect to result from this activity?" Unless objectives really make a difference in what we do as teachers, their formulation is simply a waste of time. We should think of objectives as the directions in which we are trying to change pupils.

Each physical education department must clarify its own objectives and formulate its underlying philosophy in clear and consistent terms. It must critically examine its own practices, determine the foundations upon which they are based and commit itself with respect to fundamental issues, of which today there are many!

Some rather specific purposes of evaluation are:

1. To help teachers, parents, and pupils examine the values they want to achieve from the physical education program.
2. To give strong encouragement to administrators, teachers, parents, and students to evolve certain policies, blueprints of goals and direction, as basic agreements of educational purposes against which to validate their educational procedures.
3. To provide a periodic check on the degree to which specified objectives are attained for an individual or group of individuals.
4. To improve counseling methods by providing basic information and new insight into the needs of individual students.
5. To encourage teachers to adjust and improve the teaching process and methods to aid in the achievement of objectives.
6. To give administrators, teachers, parents, and students certain psychological security and a feeling of accomplishment.
7. To form the basis for sound public relations by helping the taxpayer to realize that his money is contributing toward healthy and happier children today and better citizens tomorrow.
8. To stimulate greater professional growth in teachers.

### THE USE OF TESTS AND OTHER DEVICES

A test is a systematic procedure for comparing the behavior of two or more people. It is also the task that is performed as well as the method of appraising or defining an ability.

We deal with proficiency tests, achievement tests, and aptitude tests. Such factors as muscular strength, agility, flexibility, speed, endurance, balance, depth perception, kinaesthetic memory, coordination, insight, knowledge, attitude, social adjustment, social distance, and a host of other psychophysical and psychosocial traits or individual attributes are involved.

A proficiency or achievement test measures ability to perform some task which is significant in its own right, such as swimming, general motor ability, the dance, or gymnastics. Principally, the tests are used to evaluate the performance of people who have received special training in the activities tested, hence the term *achievement* test.

An *aptitude* test in physical education is one used to predict success in some future physical education activity. While an achievement test examines a person's success as a result of past physical education experience, an aptitude test is used to *forecast* his success in

future physical education experience. A test of athletic aptitude, for example, represents present motor traits or attributes as predictors of future athletic achievement. In using the term aptitude, specific inherited aptitude is not implied. A good achievement test of strength is a predictor of future achievement in physical education performance since it measures one important aspect of physical education aptitude, just as pitch discrimination is one aspect of musical ability.

We deal with such outcomes as physical fitness, motor fitness, and motor ability. Uniformly acceptable definitions of these terms are still to be determined and in some cases will have to await further factor analysis research studies to stabilize the definitions. Motor fitness is a state of general physical efficiency. It is a state of adaptability or possession of traits which enable one to be efficient in muscular movement. The chief criterion of motor fitness is the ability to perform motor activities with physical efficiency, skill, and competence. Motor fitness and motor ability are rather difficult to isolate separately in terms of definition. Fitness implies the state of adaptability or possession of attributes or traits. Ability represents the power to perform. Physical fitness is best defined in terms of *work capacity*, and this is what we test either directly or indirectly by the several variables we employ in a battery of test items. Keeney, who prefers to define fitness in terms of physics, work and force, suggests that,

In order to perform work, a machine must be able to exert force over a period of time. This requires a supply of energy, a device for converting the energy into mechanical work, and a control or guidance system. In animals, the oxidation of foodstuffs is the source of energy for work. In most, the muscle fiber is the device that converts energy into mechanical work, and in the more complex animals the nervous system controls the application of force and regulates the energy expenditure.

Each of these requirements and structures is associated with one of the three fundamental components of fitness; *strength*, *endurance*, and *coordination*. Strength is the exercise of force by the muscles, endurance is the ability to exert force over a period of time, and coordination is the degree of efficiency of the application of force.<sup>1</sup>

Since a statement made earlier in this volume attested to the fact that as educators we are not interested merely in physical education skills and organic power but in what happens to *human personality* as a result of these, evaluation must include appraisal of personality development, interests, attitudes, and other aspects of pupil behavior. If we accept education as the social process of change in the behavior

<sup>1</sup> Clifford E. Keeney, "Work Capacity," *Journal of Health, Physical Education, and Recreation*, September 1960, p. 29.

of the human organism, we agree that these changes include many phases in the life of the learner and that, to be comprehensive, an evaluation program cannot be limited to the use of tests alone. Instruments such as rating scales, anecdotal records, interest inventories, and check lists are needed. What we cannot measure, we will have to judge.

We can see that, since the primary purpose of evaluation is to improve learning, evaluation must be as wide and diversified as the instructional program. We need not only the formal testing program concerned with such factors as knowledge, skills, strength, and endurance but, also, the informal evaluation of social development based on sociometric friendship tests and personal distance scales. Attitude scales and appraisal of character traits by rating scales and "Guess Who" techniques provide additional means of informal evaluation of important non-intellectual determiners of success. These are available in our test and measurements text books.

The ultimate purpose of evaluation is to establish, as objectively as possible, a comprehensive picture of each pupil's developmental growth. Evaluation should aid us in finding answers about the progress pupils are making toward the objectives, first, of the physical education program and, secondly, toward the general objectives of the school as a whole. Data in an evaluation program will have value for individual guidance and curriculum revision only if thoughtful interpretations are made. Furthermore, it is difficult to draw valid conclusions from one test or observation. Conclusions must be substantiated or disregarded in the light of evidence drawn from other sources. No one item in a record should be taken at its face value alone but always considered in relation to all other information about a pupil before an accurate picture of his various attributes can be obtained. For this reason a graphic record of developmental growth is exceedingly helpful.

Let us ask ourselves frankly, "What does an 'A' or a 'D' as a single mark in physical education actually mean to the teacher, the pupil, and his parents?" Surely a single mark can neither indicate the points at which the pupil needs improvement nor guide him in planning his next steps.

Progress can be determined only if we have at least two evaluations, the first being the base line for reference. The pupil's present status becomes important in relation to his past performance records. The all-round growth of the pupil rather than his present status alone should be the focus of attention in any good evaluation and guidance program.

## THE RELATION OF PHYSICAL EDUCATION TO GUIDANCE

The guidance program in a school provides that body of services organized specifically to help pupils identify and solve their problems and improve their planning. It is not concerned with telling the student what to do or with making decisions for him, but with assisting him through competent counseling, to direct his own life, develop his own point of view, and make his own decisions. The goal for the student is self-realization, self-direction, and self-determination. One cannot go through life with a chaperon.

Guidance has many aspects, such as educational guidance, health guidance, vocational guidance, and personality guidance. In the broad sense, guidance has to do with the understanding and development of a human personality. Guidance cannot be rendered effectively without the cooperation of all members of the school staff. They must have a clear understanding of the purposes to be achieved, the activities to be performed, the methods to be used, and the particular responsibilities of all concerned. The physical education teacher and athletic coaches are in key positions to make valuable contributions.

Physical education teachers should be considered as guidance personnel since they have continuous contact with the same pupils for several years, observe pupils in situations where basic personality is more observable (at play and in informal social situations), and deal with pupils in teacher-pupil relationships that are less formal than the academic classroom. The physical education teacher in any school is frequently the key person in aiding in the adjustment of the student.

Nyman, in describing what he expects of his physical education teachers, leaves no doubt that he considers them as guidance personnel when he expects them to be:

1. professional enough to serve his fellow workers in their improvement.
2. kind enough to win young folks to his leadership.
3. doctor enough to heal the heart-breaks and soul injuries common to a big school.
4. cultured enough to be a model in taste and language.
5. creative enough to be able to put art into physical education activities and appreciate originality in others.
6. big enough to overflow into the lives of other teachers in the school to keep them balanced and encouraged.
7. wholesome enough to set the mental health climate of the school.
8. religious enough to be secure, clean, optimistic, and courageous.
9. skillful enough to provide practices in wholesome, constructive group living.



10. adaptable enough to make a physical education and health program in spite of weather, interferences, and lack of equipment.
11. young enough to catch new ideas.<sup>2</sup>

Guidance is an integral component of the curriculum which it permeates, and physical education is no exception. Physical education becomes guidance when:

1. The movement of pupils through the department becomes a planned and purposeful journey and they have some part in the planning.
2. We treat physical education experiences not as ends in themselves but as contributions to the achievement of purposes which are important to the students in terms of basic personality needs.
3. We select experiences and use methods which aid pupils in taking more responsibility for their own learning.
4. We aid pupils in solving some of the persistent problems of living, such as establishing friendships, understanding themselves and the world about them, becoming emotionally self-supporting, getting along in groups, respecting the values that characterize the ideals of American life, and similar problems.

Since we reason with data in the solution of problems and since the soundness of our reasoning depends on the validity of the data, the results (data) of our physical education tests and evaluation instruments are of considerable importance as aids to the guidance of pupils when viewed in relation to data from non-physical education sources.

Physical education teachers and the guidance coordinator should have high mutual regard for one another in the best interests of the pupils. The coordinator sees that the program provides individual and group guidance, assists teachers in planning guidance activities, directs testing, placement, and follow up, supervises the operation of a records system, counsels special cases referred by teachers, utilizes the services of specialists where possible, and generally coordinates and unifies the efforts of all people involved in guidance.

The physical education teacher sees personality in *action*. Development and behavior are functions of a number of variables. A child can be understood only by one who knows a great deal about his present behavior. Practically all clinicians and mental hygienists agree

<sup>2</sup> Emil Nyman (Principal, Lafayette School, Salt Lake City) "What I Expect of My Physical Education Teachers," *State Journal*, Iowa Association for Health, Physical Education, and Recreation, Fall, 1959.

that failure on the part of the child to enter into normal social play activities is a symptom of valuable clinical significance.

Data from the playground, athletic field, and gymnasium *must* somehow find their way into the cumulative guidance record if we intend to understand the individual as a total personality and not simply as punter in football, a good crawl-stroker in swimming, a graceful dancer, or a gifted mathematics student. The student's journey through the physical education department can be made a planned and purposeful journey only if, in addition to "giving exercise," we use the rich guidance opportunities open to us.

### RECORDS OF DEVELOPMENTAL GROWTH

Guidance experts have made clear the scope and nature of the information that a person must have about a particular child or youth in order to be able to understand him. Cumulative records in most schools and in most physical education departments do not contain the required information for guidance, and most teachers are inadequately trained to secure it.

The physical education teacher cannot be an important cog in the school's guidance machinery without some fairly valid interpretation of the pupil's motivations, needs, developmental tasks, skills, and social adjustment problems. The physical education teacher cannot possibly develop a sensitive understanding of a pupil's needs and how to help him unless he has some training in guidance, some experience in systematically accumulating important data in the physical education program, and knows how to incorporate it systematically into a functional cumulative record of the psychographic type.

A cumulative record is merely a record of information concerned with the appraisal of the developmental growth of an individual, and it is usually kept on a card or printed directly on a file folder. The psychographic type of cumulative record simply means a printed graph or profile upon which are plotted the actual magnitude of common physical education attributes attained by any individual. Care should be taken in interpretations of human personality from profiles, for an individual is more than a mere sum of separate functions which are studied in terms of deviations from the average. For this reason we have already warned against taking any one item alone at its face value. Interests, drives, motives, sentiments, and ambitions are difficult to include in a psychograph, yet these are important dynamic factors in our lives. A psychographic record, however, has the striking advantage of offsetting its limitations. It is well-suited to the comparative study of pupils by enabling teachers and parents to visualize the

standing of a given pupil in relation to his entire group. This demands standardized scores in achievement in traits such as strength, swimming skill, personal distance, motor ability, and similar achievements which can be quantified and for which we have quite valid norms.

The array of possible dimensions in the field of physical education are almost limitless. Height, weight, reaction time, physical maturity level, physical strength, skill, coordination, and similar psycho-biological factors represent organic conditions which have profound psychological results and are therefore important for personality. One does not try to make too much refinement of detail in the psychograph. This would be too time-consuming. However, coarser and composite ratings are important. Physique and body symmetry have bio-social connotations as well as psychosomatic implications related to somatotype. Health is obviously an important broad variable. Vitality, while both obscure and important, may be implied from judging energy output, dynamic drive, or "pep" in observing expressive behavior in physical education situations. Also important is medical and health information, growth information, and facts about the pupil's social interactions with his peers. One finds it physically impossible to put all important variables on a "cumulative-record form," so an optimum number of variables important to the physical education situation are sought. A tentative sample of a possible form for use with secondary school boys follows.<sup>3</sup> It is printed lengthwise on a standard file folder. The cumulative health record or Wetzel Grid card for quantifying the *quality* of growth may be slipped into the folder, and any anecdotes may be written when they occur, placed in the folder, and entered when time is available. The same holds for excuses or other memos from the school nurse which should find their way into the folder. Under health notes, such items as "needs dental attention," "needs glasses," or "recent fracture of arm" will remind the teacher of what form guidance should take.

The cumulative record is a growth record. It is not a snapshot, but a continuous graphic record of development. It stresses time sequence with comparable periods of time and comparable measurements. It gives behavior description in objective form, and the data therein are used, not merely compiled. A good cumulative record should:

1. be based on objective evidence and reliable descriptions of behavior.

<sup>3</sup> Records for the separate years may be indicated by lines of different colors for each year, e.g., green for freshmen, red for sophomores.

## GRAPHIC DEVELOPMENT PROFILE (BOYS)

GRAPHIC DEVELOPMENT PROFILE (BOYS)																																									
GENERAL		STRENGTH			ATHLETIC APPETITE		SWIMMING ABILITY HEWITT SCALE			SOCIAL ADJUSTMENT		GROUP STATUS		PERCENTILE		T SCALE		60 SCALE		RECORD OF CONFERENCES and SIGNIFICANT ANECDOTES																					
		1000 Test	500 Test	250 Test	4 Item Test	25 Yd Freestyle	50 Yd Crawl	25 Yd Back	25 Yd Side	25 Yd Breast	Cowell Index	Cowell Personal Distance	100 SCALE	75 SCALE	50 SCALE	25 SCALE	0 SCALE	0 SCALE	0 SCALE	0 SCALE																					
Date	Age	Height	Weight	Grade	McCloy Index	Cost. Index																																			
(PHOTO)																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60	80	100	0	20	40	60	80	100	0	20	40	60	80	100		
																						0	20	40	60																

Charles C. Cowell and Hilda M. Schwehn, *Modern Principles and Methods in Secondary School Physical Education* (Boston: Allyn and Bacon, Inc., 1903), pp. 252-253.

2. show trends of abilities and interest.
3. build up information on each area of a student's physical education experience over several years.
4. provide a means of recording measures in comparable and meaningful terms.
5. present information clearly and in such form and order that it shows the interrelationships between separate items.
6. be of the graphic type, with high "glance value," so that rapid generalizations can be achieved and trends in development easily noted by visualizing the data.
7. be organized into annual divisions and present an all-round picture of the student's developmental progress and not merely his academic achievement.
8. be administratively convenient and quickly reproducible by photostat or similar process.
9. Require no more clerical work than can be justified by its practical use.

Closely related to this entire matter of evaluation is the problem of reporting to parents on the welfare and progress of the pupil in school. Despite the fact that some critics contend that this represents the most retarded phase of American education, few schools agree on what constitutes a satisfactory program of reporting to parents regarding the child. The chief difference is rooted in the varying concepts as to what physical education involves and what its educational outcomes ought to be.

Reports to parents should be in harmony with what the school considers educationally important. We have now completed our circle and find ourselves face to face with philosophy and objectives.

## SUMMARY

The purpose of evaluation is that of determining quality and quantity of student development. As applied to physical education, it is "stock-taking" to determine progress toward attainment of the objectives of strength, fitness, good social adjustment, and all of the multiplicity of outcomes which are desired. It may be used as a check on progress within an activity or program, or it may be used to summarize the results at the conclusion of an entire area of operation.

In order to evaluate, one must have clear concepts of purpose. It is against these purposes that results are checked in order to arrive at conclusions which are the evaluation. The obtaining of results is dependent on the use of a variety of tools, ranging from standardized tests to observational judgments.

Physical education teachers may use achievement tests in great quantity without ever attaining evaluation of their programs. This is true because evaluation of program is a much more inclusive thing than the judgment of a few aspects within it. In addition to specific physical competencies, many over-all outcomes such as physical fitness, motor fitness, motor ability, and many attributes of personality are liable to evaluation.

The ultimate purpose of evaluation is to establish a comprehensive picture of the student's developmental growth. Having this, the teachers can then pool their information to the end that such student may have the best possible guidance. The person responsible for guidance in a school or school system can secure tremendous amounts of help from the physical education teacher, providing such teacher has taken advantage of the opportunities in his work for evaluation.

## THOUGHT PROVOKERS

We leave the student to reflect on principles of measurement, evaluation, appraising and recording student progress, and reports to parents by endeavoring to illustrate the following principles or generalizations by specific application to physical education situations.

1. Man appears to be universally interested in measurement.
2. Teachers should have the same basic interest as others engaged in the objective assessment of behavior.
3. By the nature of his profession, a teacher must be concerned with measurement.
4. The major emphasis on an all-inclusive program of evaluation should be given to instructional values.
5. Evaluation should focus attention on the goals of education.
6. To be comprehensive, an evaluation program should not be limited to tests.
7. Evaluation must be as broad as the purposes of education.
8. Evaluation should not be limited to written examinations and objective tests.
9. Evaluation emphasizes growth.
10. The first step in evaluation is the formulating and classifying of the department's curriculum objectives.
11. Evaluation best serves its purpose when used to find answers about the progress pupils are making toward the department's objectives.
12. The single grade (mark) used so frequently in physical education has many limitations.
13. A continuing program of evaluation should focus attention on growth rather than status.
14. Self-appraisal is an integral part of evaluation and should be encouraged.

15. An adequate evaluation program should help the student, his parents, and his teachers to discover his needs, appraise his achievements, and guide his progress.

16. Statistical analysis should be the right hand of, not the substitute for, insight.

17. We evaluate learning in the light of the aims and values underlying the learning process.

18. The maturation factor in pupils must be considered when we begin to evaluate.

19. Measurement and evaluation tend to affect the curriculum, and therefore the students.

20. It is impossible to teach something which we cannot evaluate.

21. Achievement scales stimulate student interest in activities through a fair evaluation of their performance.

22. Physical education should set levels of performance in relation to the individual's development.

23. The first duty of the school is to know its pupils as individuals.

24. The activities in which children participate can provide valuable information regarding the interests they possess.

25. In an anecdotal record the teacher records exactly what he observes, being careful not to mix his own interpretations with statements of fact.

26. The backbone of any guidance program worthy of the name is an individual cumulative record containing the results of a well-organized testing program.

27. The records system should provide a minimum of repetition of items.

28. The percentage system is the oldest and, in most ways, the least satisfactory plan of marking.

29. Two objections to school marks are the hasty and unreliable judgments by teachers concerning their pupils and the fact that usually no one has a very clear idea of what a given mark means.

## ORIENTATION READING

Clarke, H. Harrison, *Application of Measurement to Health and Physical Education*, 3rd ed., Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1959. Aimed at functional application of tests in school and college situations but suggestive for research workers as well.

Cowell, Charles C. and Hilda M. Schwehn, *Modern Principles and Methods in Secondary School Physical Education*. Boston: Allyn and Bacon, Inc., 1963. Part V, entitled "Foundations of Measurement and Evaluation."

Latchaw, Marjorie and Camille Brown, *The Evaluation Process in Health Education, Physical Education and Recreation*, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Stresses the construction and use and selection of tests and measurements by professional students.

- McCloy, Charles Harold and Norma Dorothy Young, *Tests and Measurements in Health and Physical Education*. New York: Appleton-Century-Crofts, Inc., 1954. A comprehensive text, aimed primarily at the stimulation of research in physical education.
- Mathews, Donald K., *Measurement in Physical Education*. Philadelphia: W. B. Saunders Company, 1958. Intended for students taking a first course in tests and measurements.
- Meyers, Carlton R. and T. Erwin Blesh, *Measurement in Physical Education*. New York: The Ronald Press, 1962. Includes many available tests for all educational levels and avoids the complexities of statistical terminology.
- Scott, M. Gladys and Esther French, *Measurement and Evaluation in Physical Education*. Dubuque Iowa: Wm. C. Brown Company, 1959. Discusses test construction and gives practical applications of various tests for both sexes.
- Smithells, Philip A. and Peter E. Cameron, *Principles of Evaluation in Physical Education*. New York: Harper & Row, Publishers, 1962. Stimulating in its difference of approach and the introduction of points of view from Europe and New Zealand.
- Willgoose, Carl E., *Evaluation in Health and Physical Education*. New York: The McGraw-Hill Book Company, Inc., 1961. Suggests the intelligent use of many types and techniques of objective and subjective evaluation.



# 12

## PHYSICAL EDUCATION IN RETROSPECT: HISTORICAL ORIGINS AND CONCEPTS

The historian need not be a prophet, but the prophet must  
be a student of history.

WILLIAM ARTHUR WARD

IF WE AGREE WITH DEWEY THAT "HISTORY IS THE PAST OF THE PRESENT," we can understand present-day physical education only if we examine it in retrospect, historically. Education takes place in a society which is undergoing rapid change. The social and environmental pressures which represent all forms of cultural activities (including games, sports, and the dance) and which determine attitude are *education*. The individual culture pattern we acquire in education is *personality*. Civilization is not a matter of lone individuals, but a culture developed by a highly organized group to which a citizen belongs.<sup>1</sup> Because culture is socially inherited, we *are* our culture. Since cultures are in a constant state of flux, the image of the twentieth century American, for good or ill, differs from the eighteenth or even the nineteenth century American. Lucretius (c.98-55 B.C.), the Roman poet, expressed the results of his observations when he wrote, "Some races wax, others wane; in brief space, the tribes of men change and, like relay runners, pass from hand to hand the torch of life." For historical purposes the relay baton might also be labeled "culture." Education, of which physical educa-

<sup>1</sup> See pages 43, 48, 65, 66.

tion is an integral part, is the process by which the cumulative culture of one generation is selectively passed on to another generation. Our knowledge of games and sports, the traditions surrounding them, the many techniques by which proficiency is achieved, and, last but not least, the values inherent in participation therein are products of a long period of social inheritance or culture. *What* we pass on or *accept* from previous culture groups is most important if we are to contribute to an *improved* rather than a decadent culture. Cultures are changed by changing the value systems or the philosophies of a large number of individuals.

History repeats itself when the conditions as variables of which history is a function are repeated. Like begets like.<sup>2</sup> Intelligence is the ability to profit by experience. Are we intelligent enough to learn from the lessons of the past? What happens to a civilization when games and sports are over-commercialized and over-professionalized? The American culture pattern reflects our sports code. The codes of sports were developed long before codes of business and commerce. It is not a coincidence that the deterioration of the civilization of ancient Greece and Rome was preceded by a collapse of the high ideals of the early Olympics, in the case of Greece, and the brutalization of the arena, in the case of Rome.

If the brutality of the arena replaces the true artist attitude of the *real* amateur, we may well see a dulling of our social and moral sensitivity and awareness and a corresponding retrogression in our civilization as a whole. Play and civilization have developed hand in hand.

Sports and recreation are not a product of modern educational planning. They have long been a part of man's effort to do the things he thought necessary for survival. They are an outcome of his desire for creative expression, of his need for vigorous activity and his attempts to perpetuate those skills, knowledges and attitudes he thought necessary for living effectively. Sports and games have been a fundamental human experience from the time of primitive man. They have been one of the recognized elements of every culture, along with communication, music, art, religion, survival activities, and in modern times, literature, science, production and distribution, education, and advanced forms of social organization.

With primitive man, survival was largely a matter of physical efficiency. Length of life was related to his ability to endure outdoor living, fight off enemies, and procure his food. The physical qualities of strength, speed, endurance and agility were survival insurance. Membership in a group increased the survival potential. From this

<sup>2</sup> See pages 128-129.

group membership there were developed certain games, dances and other folkways. Through play experiences, tribal youth were taught knowledges and skills they needed as adults. Physical education in primitive times was directly related to the skills and qualities required for living.

In early civilized cultures, physical education and recreation were also part of total living. In early Egyptian life, swimming, wrestling, and gymnastic games were popular. Hunting and dancing were extensively practiced. There were also children's games, and the warriors supplemented military skills with sports and games, even as we did in World War II.

Aside from the fact that we, as teachers and citizens, should understand, in terms of the past, the present world of which we are a part, it is of some interest that we should not be ignorant about ourselves and our profession and how we got this way. We proceed therefore to hold up a brief panorama of historical episodes which might help us to understand a bit more fully the historical reasons for things as they are in physical education today.

## THE GREEKS

Although games and sports and resultant physical education were cultivated hundreds of years before the Christian era by the Egyptians and several Asiatic races, the ancient Greeks seem to be the first, if not the only people, to make physical education an instrument of national policy and an integral part of education.

The significance of ancient Greek education lies in the fact that it was here that was first attempted the development of a social order and institutional organizations to encourage individuality, liberty of initiative, and judgment which led to stability and progress unseen up to that period. Greece as the "Mother of Democracy" introduced the political ideas of "the public good," government in the interest of the governed, devotion of free citizens to the uplift of their state, and the rights of the individual. Educationally, Greece's innovations were the stupendous tasks of equipping man for life both as a citizen and for earning a living, for encouraging his full development, mentally and physically, morally and aesthetically. In intellectual development, the Greeks made a supreme contribution to the history of education. The love of knowledge for its own sake found its first devotees in Greece, and the application of the intellect to every phase of life indicated their enjoyment of the life of reason. They first formulated the concept of man as primarily a thinking animal, as emphasized in Plato's phrase, "Let us follow the argument wherever it leads."

Moral aspects of personality and the abstract development of a moral sense came largely with their philosophical insight based on principles of conduct and moral freedom and of recognition of moral responsibility. Since the Hebraic-Christian ethic, with ideal personal realization of service, love, and self-sacrifice, as furnished by Christianity, was yet to come, the greatest weakness of Greek character lay in their inadequate formulation of sanction of moral principles.

It seems reasonable to believe that the traditions centering around the early games and sports did contribute to moral development of the personality. Witnesses had to testify that Olympic competitors had no stain, religious or civil, on their characters. Games and athletic contests were generally connected with and formed part of a religious observance. It was to the gymnasium that the poet, artist, philosopher, and merchant each brought his wares and created a common denominator for all Greeks. Furthermore, the "sacred armistice," or cessation of all hostilities called the "truce of God" was signaled during the time of the Olympics. Competitors had to take a sacred oath that they had duly qualified themselves by ten months' continuous training and that they would use no "fraud or guile" in the contests. Prizes, at first, were of little intrinsic value, perhaps a garland of wild olive cut from the sacred tree.

Although we are aware of the philosophical insight and moral grandeur of Socrates and Plato, the religious sentiments of the multitudes outside of sports had to await the teachings of St. Paul, who, as a disciple of Jesus, applied Greek philosophy to the teachings of the Hebraic-Christian ethic.

Since any details of physical education history require a separate volume of which several are listed as reading references, the following generalizations concerning the contributions of the early Greeks to physical education should give the reader a fairly adequate picture.

1. The Homeric Age (900-850 B.C.) pictured in two great epics, by the *Iliad* and *Odyssey* of the poet, Homer, called the "educator of Greece," reveals interest in a number of sports activities. Its poetry was replete with religious and ethical lore. Sacrifices to the gods, funerals, festivals, and lesser occasions called for tests of manly strength and skill in gymnastic competitions. Boxing, wrestling, foot-racing, jumping, throwing, and dancing, were precursors of our modern athletic events. The ideal of this period was the man of action—the warrior—and his chief virtue was bravery.

This heroic period was succeeded by the historic period of the old Greek education which developed along two quite diverse lines, best

typified by Sparta and Athens. Here we find reference to the first Pan-Hellenic celebration of the Olympian games at Olympia in 776 B.C., to be held every fourth year thereafter until abolished by Roman emperor Theodosius in A.D. 394. Over a thousand years later, the modern Olympic Games were revived at Athens in 1896 under the leadership of Baron de Coubertin, a Frenchman.

2. Following the Homeric period, old Greek education was determined in character and organization by the dominant social institution, the city state, exemplified by Sparta and Athens, with Sparta at first dominating the scene (730-600 B.C.)

3. The warrior element was strong in Sparta. The Homeric ideal of the hero survived beyond Sparta and into the later classical Hellenistic period of Athens where it sought expression in sports, the arts, and the humanities resulting in a new moral climate and style of life. Sparta, however, was primarily a military state. Its citizens were brought up not to be knights but soldiers. To be valorous in arms and to stand fast in battle was the Spartan ideal.

Spartan culture, although not unacquainted with the arts, placed great emphasis on physical education and the Spartans delighted in all kinds of riding, sports, and athletics. Marrou states:

we have enough records of the Olympic Games to know what a high proportion of victories went to the champions from Laconia in these sports. Sparta's earliest recorded victory dates from the fifteenth Olympiad (720 B.C.). Between 720 and 576 B.C. there were eighty-one known Olympic winners, and forty-six of these were Spartans. In the all-important running event, the "stadium race," twenty-one of the thirty-six known champions were Spartans. These successes were due to the excellence of their methods of training as much as to the physical qualities of the athletes. . . . Sport is not for men only. There is evidence that even in the first half of the sixth century women were taking part in athletics—Plutarch was delighted about it: it was apparently one of Sparta's curiosities in Roman times—for there are charming bronzes showing girls running, holding up the hem of their short sport skirts with one hand.<sup>3</sup>

4. Sparta was a militaristic, totalitarian state whose chief educational aim was the development of superb soldiers. It had a highly developed system of eugenics or race culture. All children when born were passed upon by a committee of elders and only those well-formed and healthy were permitted to live. From the time the children were seven years old, they became property of the state and pro-

<sup>3</sup> H. I. Marrou, *A History of Education in Antiquity* (New York: Sheed & Ward, Inc., 1936), pp. 16-17.

gressed through a program not unlike the modern totalitarian systems which copied the Spartans and to which German and Italian youth were subjected during the World War period. In programs such as these, physical training received first consideration. Youth learned to endure hardship in an austere, ascetic atmosphere.

5. Girls, too, were turned into husky, sturdy women with emphasis upon gymnastics and sport and less emphasis on the balancing grace coming with additional music, choral singing, and dancing. Like the women under Fascism, their duty was to mate in the best interests of the race and to produce numerous healthy children.

6. Due to constant attacks from external sources and the danger of insurrection from conquered tribes, the state gained complete dominance over the individual. Although he became self-dependent when it came to personal conflict and personal needs, complete subservience to the laws of the state resulted in weakened moral character when compulsion was not applied. Intellectual and aesthetic aspects of life were minimized. The severe training had a hardening and brutalizing tendency. Spartans participated very little in the great artistic, literary, and philosophical development which was later "the glory of Athens." While Athens has left us much, Sparta has left us practically nothing but the example of a wholly militarized education and a few examples of heroism. Sparta eventually lost not only her independence, but the chance to become civilized.

7. The organization of Athenian education, being controlled by a different conception of life from that at Sparta, was radically different from that of the latter. Athenian education stressed citizenship and a broad but individual culture. The training of the child for the first seven years was entirely in the hands of the family, yet the training emphasis was chiefly physical and aimed at a hardy constitution and a well-developed physique. From 8-16 years, boys went from one school to another. The "grammar" school furnished reading, writing, and counting; the music school, involving choral singing closely bound up with dancing and instruction in instrumental music, was as important to the Greeks as was the gymnasium. This broad program balanced the development of youth who otherwise might have become coarsened by the boxing, wrestling, and other vigorous games and sports which alone would not lead to rounded spiritual, intellectual, and artistic development. "Gymnastics for the body; music for the soul" was Plato's interpretation. The palaestra or gymnasium required half of the boy's time for sports and games. It aimed at harmonious development and moral training. The games and exercises were varied and interesting, consisting of ball games, rowing, boxing, wrestling, gymnastics, and track and field sports. Swimming seemed

to be poorly developed and no mention is made of competitive swimming.

8. At about sixteen years of age, the Greek youth was freed from the care of the pedagogue, and his literary and musical training was replaced by the training of the palaestra where the young man associated with youth of his own age and with adults. Here, he was under the general supervision of the *sophronist*, or moral overseer, and the *paedotribe*, or state official. By discussion and association with his elders and by attendance upon the theater and law courts, he gained the knowledge of laws and moral customs for proper conduct and responsibilities of citizenship.

9. Now, having completed his preparatory training at eighteen and having demonstrated his moral and physical requirements of citizenship, he became a free citizen upon taking solemn oaths to the state, the gods, and the moral traditions of his people. He was now enrolled as a cadet or ephebus and did his military service, in which no small part consisted of training in public service involving religious and social festivals. These developed religious devotion, patriotism, the social graces, and harmonious physical development. After the first year, a public examination in the use of arms was held; after the second, there was a similar examination upon the duties of citizenship.

10. The idealism and purpose of this education is implied in the celebrated ephebic oath taken when cadets were enrolled.

I will never disgrace these sacred arms or desert my companions in the ranks. I will fight for temples and public property, both alone and with many. I will transmit my fatherland, not only not less, but greater and better than was transmitted to me. I will obey the magistrates who may at any time be in power. I will observe both the existing laws and those which the people may unanimously hereafter make, and if any person seek to annul the law or set them at naught, I will do my best to prevent him, and will defend them both alone and with many. I will honor the religion of my fathers. And I call to witness Agraulos, Enyalious, Ares, Zeus, Thallo, Auxo, and Hegemone.

This reminds one of the oath of our defunct Sportsmanship Brotherhood, which we would do well to revive, or the pre-game "pep" talk of an American football coach to his squad.

11. The Age of Pericles (445-431 B.C.) resulting from Greek education was a brilliant period of personal achievement and national progress never surpassed in history. Games and sports were not indulged in haphazardly as with many of our modern youth, nor were

they participated in by the few for the entertainment of the many. Standards of success were also somewhat different. Winning was less important than proper form, graceful and dignified carriage, the control of temper, courage, and skill. Physical training, as Aristotle would have it, should serve the education of a citizen whose end is not conquest, but the virtuous life. Gymnastics and music were for aesthetic and moral training as well as physical. Success in sport was a token of success in life. Parallels between games and life were constantly drawn by the Greeks.

The Greeks left with us rich contributions to art, literature, philosophy, and science which included the concepts of moral worth, education through the physical and of the body as well as the mind. The ideal of a balanced life through balanced education and moderation in all things which led to the origin of all existent culture, aesthetic enjoyment, intellectual power, political freedom, moral personality, and a considerable degree of social excellence has been passed down to us from the Greeks.

To the Greeks we have given the more numerous pages devoted to history simply because their contributions have been greatest in both quality and quantity.

## THE ROMANS

Although Greece eventually became the captive of Rome, the latter rapidly assimilated the culture of its prisoner. That even Rome realized this is recalled in the poet Horace's: "Captive Greece took captive her savage conqueror, and brought civilization to barbarous Latium." Greek influence continued increasing as Rome extended its empire, and in no field was this influence stronger than in the field of intellectual culture or education. Roman aristocracy adopted Greek education for its sons. Teachers, musicians, and artists were available from the numbers of Greek slaves that conquest (146 B.C.) had provided.

Although the individual attributes of these two civilizations differed markedly, they supplemented each other exceedingly well. The Greeks shone in the realms of intellect and imagination, while the Romans were gifted in law and administration and in such practical fields as architecture and engineering. Although much was borrowed or inherited from the Greeks, the Romans were great educators and spread civilization over wide areas and among the many peoples of their sprawling empire. The Latin language, the Roman schools, the civil empire of political Rome, and later the religious empire of the Roman Catholic church retained and added to many of the great Greek



contributions. They preserved and later transmitted these to the Western world from whence our own civilization came.

While the Greeks were intellectual and aesthetic, the Romans were utilitarian and pragmatic. Monroe has stated,

For this reason the Romans tended to look upon the Greeks as a visionary, unpractical people, while the Greeks considered the Romans somewhat as sordid barbarians, with force of character and military strength, but with no appreciation of the higher aspects of life and culture. The Greeks were imaginative, impulsive in their actions, and joyous in their view of life; the Romans were matter of fact in their estimate of things, grave and sedate in their bearing, severe in their standards of conduct, and superior to the Greeks in dignity and moral force.<sup>4</sup>

The differences in personality attributes are reflected by the diverse influences of religion upon their respective educations. The Greeks, in their early religion, were greatly influenced in their idealization of the beautiful, the life of contemplation and reason, and lofty aspiration after virtue. On the other hand, although the religion of the early Romans was full of superstitions,

. . . it had a distinct ethical influence foreign to that of the Greeks; it concentrated love of country, hallowed the family relation, preserved the sanctity of the oath, developed the sense of duty—all of which things Greek religion did not do. These influences on life constituted the contribution of Roman religion to Roman education, for the development of these traits was the practical aim of their education.<sup>5</sup>

The basis of Roman education was the family. Unlike Greece, in Rome it was the mother herself and not a slave who brought up her child. While the girls tended to remain at home with their mothers, boys soon came under the direction of their fathers who were looked upon as their real teachers and who had a strong sense of duty toward their job as educators.

At about sixteen, the boy's home education came to an end; he took off his toga edged with purple which identified him with childhood and donned the *toga virilis* which now marked him as a citizen. Then followed a year spent in preparing for public life. At this point the boy was taken in hand, not by his father necessarily, but by some male member of the family who acted as a teacher and like a father. The boy accompanied his guardian and teacher to the courts, to the

<sup>4</sup> Paul Monroe, *Textbook in the History of Education* (New York: The Macmillan Company, 1923), pp. 177-178.

<sup>5</sup> *Ibid.*, p. 179.

senate, and learned from seeing all sides of life ahead of him and from the precepts and examples of his teacher. It is to be remembered that Roman culture remained aristocratic and young aristocrats were brought up to respect not only national tradition but family tradition as well.

Following the year "learning about public life" came military service, with the first year spent in the ranks. Here, as future leaders, they first learned to obey. However, they were not treated like ordinary conscripts and in about a year, they left the ranks to become young staff officers where they completed their training under the watchful eye of some elderly and venerated military leader.

The Romans, being practical, felt that all moral training should be closely linked to real life, therefore they did not follow the Greeks' great deeds in sports or war alternating with splendid leisure. Their ideal was a male head of a household (*paterfamilias*) properly following the tradition of his ancestors; education for them was strictly utilitarian.

In this light, physical training rather than physical education became the goal. Fencing, javelin throwing, sword play, vaulting, and riding, tests of enduring heat and cold, swimming across rivers, and boxing indicate the lack of *sport* as we know it. Exhibitions and games in the circus,<sup>6</sup> with the idea of competition kept at a minimum, provided an opportunity to be seen, get talked about, and bolster one's ego. While the Greeks were actors, the Romans were spectators. The term "bread and circuses" was made real by the Roman politicians who made the circus arena a political club, a place for electioneering, a betting ring, and a playground for millions of spectators. Public games, as exhibitions, became an integral part of Roman political and social life.

The desire for excitement on the part of the Roman mobs and the taste for "games" became a passion. These exhibitions were used by political adventurers to gain political favor. Chariot races, the baiting (tormenting or goading) of wild animals, either pitted with one another or with human captives or criminals, gladiatorial combats or simulated sea fights in flooded arenas, and finally the actual slaughtering of slaves or captives show the heights to which coarseness and inhumanity rose in these brutalizing spectacles. Julius Caesar, who died in 44 B.C., enjoys the doubtful honor of having initiated bull fighting.

Under the first Christian emperor, Constantine (The Great) (A.D. 306-337), numerous prohibitions of such orgiastic practices were made,

<sup>6</sup>In ancient Rome, an oval or oblong arena with seats around it, used for games, chariot races, and festivals.

but they continued to flourish as late as St. Augustine (A.D. 354-430). These episodes are mentioned because of the possible correlation of attitudes toward physical education and athletics and human relationships in the development of culture patterns. Pericles (459-431 B.C.), of Greece's great Golden Age, no doubt would have loathed such spectacles as were later tolerated by Augustus and patronized by Trajan (98-117 B.C.).

In conclusion, we can say that the Romans contributed little to the development of physical education. Professionalism with money prizes was encouraged and these led to bribery and corruption. Moral values and potential contributions to education were entirely forgotten. Their chief contributions were in the amalgamation of the whole ancient world, giving it common language, politics, dress, legal institutions, and other aspects of a common culture. They spread Greek academic learning and education far and wide and left a legacy of law and public administration and the idea of world empire to later generations.

## THE GERMANS

The naturalistic tendency treated education "according to nature" as a natural rather than an artificial process. Education, as viewed by the Naturalists, came from within and was not an accretion from without; it came through the operation of natural instincts and interests and therefore all educational efforts must start from the instinctive tendencies and not from response to external force. The educational theories were derived from the nature of children. The nature of the child's growth and development was to determine the educational process at each stage of development. It was Rousseau (1712-1778) with all of his practical shortcomings, who denounced the traditional authoritarian education and brought the child into the forefront, thereby introducing psychological principles derived from the study of the child mind in development, starting with natural instincts and tendencies to action. Rousseau conveyed the idea of the total organism and the fact that when the individual responds, he "responds all over."<sup>7</sup>

The influence of Rousseau carried over into positive formulation in practice in Germany by Basedow (1723-1790) and his followers Salzmann (1744-1811), GutsMuths (1759-1839), and, of course, Froebel (1782-1852) who founded the kindergarten in which he presented the first well-organized program of education through play.

<sup>7</sup> See pages 16, 87, 101-102, 130.

and moral powers through the practice of gymnastics. His first *Turnplatz*, or open-air gymnasium, was opened in Berlin in 1811. The movement spread rapidly and the young gymnasts were encouraged by the teachings and writings of Jahn to regard themselves as members of an association for the emancipation of their fatherland.

To Jahn we owe the invention of not only much of the heavy apparatus common to German gymnastics, such as vaulting bucks, parallel bars, horizontal bars, and similar equipment, but a special gymnastic costume as well. His activities were interesting and permitted the students considerable opportunity to invent exercises or stunts and challenge their colleagues in a friendly spirit of rivalry to emulate them. With the patriotic zeal of the time, the students continued to practice indoors during the winter and study seriously the gymnastic handbooks of GutsMuths. Eventually gymnastic nomenclature was developed. The various exercises were given names and the methods of performance described. Jahn's famous book, *Die Deutsche Turnkunst*, became the turner's guide throughout Germany. Young men formed *Turnvereine* or societies for gymnastics<sup>9</sup> who later held *turnfeste* or gymnastic meets and even developed a newspaper devoted to gymnastics called the *Turnzeitung*.

Jahn's patriotic zeal to unite Germany's several states and the fact that the "turners" were imbued with his political ideas of constitutional freedom and popular government caused the kings of the separate German states to become concerned about their thrones. The turners organizations, now being looked upon as sources of revolutions, were suppressed in Prussia, and Jahn was held in prison, making the period 1820-40 one of little progress in physical education.

Frederick William IV removed the ban on turnverein and issued an edict encouraging their contribution to education. Each year after German unity was achieved in 1870, membership in the turner societies grew and passed the 2,000,000 mark in 1926. Along with gymnastics, the turners gradually accepted and included games and sports. Games like hockey, soccer, volleyball, and Germanized basketball, as well as swimming, boxing, wrestling, track and field, and hiking grew to great popularity.

Under Hitler and the Nazis, from 1933-45, a vigorous program of centralized physical education came into being, but the politicians exploited youth and the physical education program for their own purposes and placed all out-of-school sports under the control of a national sports commissioner. The school physical education program for both boys and girls under the minister of education also thrived and received more careful attention. Health examinations, physical

<sup>9</sup> First Turnverein in the United States formed in Cincinnati in 1849.

fitness tests, national awards, and an important annual school sports day enriched and motivated the program for both sexes. Unfortunately, these programs were also used as a baited trap to attract youth and indoctrinate them in Nazi ideology.

Today under the fine leadership of Dr. Carl Diem (who is Director of the German National Commission of Physical Education and is head of the *Deutsche Hochschule für Leibesübungen*, a higher institute for the training of physical education leaders), Germany, now becoming more democratic each year, gives important leadership to research and teaching in the fields of physical education and sports medicine.

### THE SCANDINAVIANS

Although Scandinavia includes Norway, Iceland, Denmark, and Sweden, from the history of physical education standpoint, Sweden and Denmark have figured most prominently.

With Sweden invaded by Russia and Denmark in 1807 and having had the Åland Islands and the province of Finland wrested from her, the Swedes, like the Germans, turned to national participation in gymnastics with a patriotic, military, and morale motive. Like other nations after the wars, Swedish programs were later continued and improved in the interests of national education and welfare.

It was in 1804, after teaching and studying in Denmark, Germany, France, and England, that Per Henrik Ling (1776-1839) returned to Sweden to teach gymnastics and fencing. The beneficial effects of exercise upon his own health made him a zealot in applying this experience for the benefit of others. Although originally taking his degree in theology, he began the study of anatomy and physiology and actually later went through the same curriculum pursued by medical doctors.

He developed an elaborate system of gymnastics which he divided into four branches: pedagogical, medical, military, and aesthetic. After Ling's failures to interest his government, the Royal Gymnastic Central Institute, with Ling as principal, was founded in 1813 for the purpose of training gymnastic instructors.

After much justified skepticism on the part of orthodox medical practitioners concerning claims by Ling and his pupils of the effectiveness of gymnastics in curing disease, he was finally elected to membership in the Swedish General Medical Association in 1831. Upon his death in 1839, his son and two other associates carried on the work, and it is this group which is regarded as the pioneers of Swedish medical gymnastics.

Ling's son and successor, Hjalmer, systematized the mass of gymnastic movements developed by his father and developed the "gymnastic day's order" which stressed progression, literally from "head to toe" and from day to day. Precision of movement, response-command movement en masse, did not meet the needs of peace-time programs, so more recent leaders have revised the older Swedish gymnastics. Today we find a more elastic program suited to the needs of children, youth, and adults of both sexes who find, besides the program of "movement gymnastics," rhythmic exercises, games, athletics, skiing, and dancing. The principles of Ling still remain the basis for Swedish physical education, but the compromise is reflected in the fact that school physical education programs are referred to as "Gymnastics with Games and Sports."

The Swedes are a great outdoor people. In winter, skating, long-distance skiing, ice hockey, curling, sail-skating, and ice-boating are popular. In the short summer season, sailing, canoeing, rowing, and swimming engage thousands. Boxing, wrestling, and weight lifting are popular individual sports, while soccer is the most popular team sport. Gymnastic programs for adults are popular for office workers and housewives who are stimulated to action by a national fitness program.

Denmark has experienced a similar history of war and loss of territory. Franz Nachetgall (1777-1847) who, as Director of Gymnastics, greatly influenced the Swede, Ling, spread his system of exercises from the schools to the armed forces. His gymnasium in Copenhagen was the first to be established in modern Europe, and Denmark was the first European country to accept physical education as an integral part of the school program, to train teachers for this, and to develop and distribute teaching manuals to instructors.<sup>10</sup> In the field of adult education, the folk high schools, which were unique to Denmark, have always included gymnastics in their programs and meet the needs of farming youth who have at least completed elementary school.

Mention should be made here of Niels Bukh, principal of the Folk High School for Physical Training at Ollerup where young men and women, chiefly from farms, take short courses of from three to five months so that they may become gymnastic leaders in voluntary clubs in their respective communities. Bukh's system was based strongly on Ling's corrective gymnastics with additional emphasis on encouraging more freedom for a youthful and athletic type of work.

<sup>10</sup> Deebald B. Van Dalen, Elmer D. Mitchell, and Bruce L. Bennett, *A World History of Physical Education* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1953), p. 284.

His aim was a thorough working and toning up of the whole body emphasizing flexibility, muscular power, and elimination of awkwardness; in other words, the development of mobility, strength, and agility much needed and often lacking in farm youth. Bukh entitled his teaching manual "Primary Gymnastics." Like Ling he planned his program based on a "fundamental gymnastic table"; that is, work for all parts of the body and a gradual rise and fall in the output of energy.

Like most modern nations, Denmark is endeavoring to combat the evil physiological influences of automation and mechanical transport by conserving her natural recreation resources for the good of all. In the capital, Copenhagen, one finds a separate portion of the highways marked off and reserved for the hundreds of cyclists who pedal on as bumper-to-bumper motor traffic often sails on beside them.

Medical inspection, health examination, and dental care accompany required physical education in all Danish elementary and secondary schools. Physical education grades are given and counted in the cumulative index of each pupil. All students are expected to dress for physical education classes and to shower afterward.

## THE ENGLISH

While the term British refers to natives of England, Scotland, and Wales, historical comments will deal largely with the English as the dominant people of the British Isles.

Before 1870, England left all educational effort either to the family or church or through special institutions of the great "public" schools.<sup>11</sup> These schools even today have strong classical traditions and are highly selective by examination with the main purpose being university preparatory for the potential leaders of the nation.

Education in England was never strongly centralized. The local county and county-borough educational authorities operate one set of elementary schools, and some religious groups and orders operate another. The government gives grants to both types. Admission to secondary education is by examination, and formerly its chief purpose was to prepare for the university. Actually only a fairly select group is privileged to enter the university preparatory secondary school. This attitude, that secondary education is for the intellectual and social elite, is rapidly changing. The turning point came with The Educa-

<sup>11</sup> Originally intended to be for paying and non-paying pupils. However, the paying students increased to the extent that the free pupils were squeezed out. Eton, Harrow, Rugby, Westminster, and others dating from 1382 to 1611, but still operating, represent some of the most historic and traditional "public" schools.

tion Act of 1944 with the Labor Party in majority. Under this Act, pupils may enter any of three types of secondary schools. These are the university preparatory school, the technical academic or grammar school which stresses vocational education and is the traditional school for those with mechanical and scientific abilities, and the modern school. The latter school stresses general education which is adapted to the needs of the majority who may not fit into the other two schools. The criteria for screening pupils for entry into one of these three types are: tests of various types, recommendations of faculty members and principal, and desires of parents.

England, being an isolated island kingdom protected from enemies for many years by the Channel, was therefore devoid of compulsory military training for a long period. Recognizing the need for activity, the English chose physical exercise which was not regimented drill but fun. Games and sports thus became popular. The flat green areas called "commons" and present in all communities, the climate, the spirit of association and solidarity encouraged by local self-government were all factors in making England the "cradle of modern sport."<sup>12</sup> The English have, perhaps, been able to retain the true play spirit in their sports and games to a greater extent than the people of any other national group. They have never permitted the *play factor* in sports to atrophy to the extent that is true in American colleges and universities. An extraordinary variety of sports have been popular in Great Britain with all classes for the past five hundred years, no country comparing with it in this respect. National unity, military fitness, and similar associated objectives stressed in European countries were never the principal focuses for physical education in England. Rather, character, the social attributes of the "gentlemen," and all-round fitness were stressed.

Furthermore, the Englishman does not lose his love of sport when he leaves his native island. He has carried games and sports in their finest tradition to all corners of the globe. In the days of the far-flung empire, men in the British Army and the civil service spread tennis, soccer, and Rugby football, cricket, track and field sports, rowing, and field hockey to many foreign lands where they still function today as important elements in culture and education.

The original Celtic inhabitants of Great Britain were an athletic race. The works of Shakespeare (1564-1616) and other Elizabethan poets abound in allusions to sport which even then formed an important feature of school life and at fairs. The ancient origin of most of the English games and sports enjoyed by youth and adults has much to

<sup>12</sup> J. Huizinga, *Homo Ludens: A Study of the Play-Element in Culture* (New York: Roy Publishers, 1950), p. 197.



do with the sport tradition that has become deeply ingrained in English life.

The Englishman engaged in business or a profession maintains his activity in sport much longer than the American. He may play rugby or association football in an amateur club until thirty or more, cricket till he is fifty, and tennis as long as he can enjoy it without acute discomfort to himself or his opponents. Sometimes, but less frequently than an American, he will resort to the gymnasium for exercise. He takes pride in keeping fit, and indeed the desire for activity that this pride prompts, urges him so to regulate his duties, business or professional, that he may indulge in it. Since his friends and associates have the same desires, he finds congenial company in amateur football and cricket clubs as well as clubs in other fields of sport. Many of these clubs are institutions of honorable history, that have been in existence for more than a generation and a half, supported by the same kinds of sportsmen and devoted to the same ideals of sportsmanship. . . . The American worker who once played football or baseball or ran appears to reach comparatively early a state of mind which permits his paying admission to watch amateur or professional teams compete, sitting in the bleachers or the grandstand, and reading accounts of games in newspapers. His interest tends toward passivity at a relatively early age. The Englishman's interest in sports appear to remain active until much later in life.<sup>13</sup>

This picture, resulting from a thorough study of British games and sports and their place in British life over thirty years ago is perhaps a valid picture today. The American picture by contrast, seems to show little improvement. With competitive sports pressures being exerted on youth in the intermediate grades, they start sooner than ever. But perhaps this causes them to wind up in the bleachers or in front of the television screen as spectators at an earlier age, too.

### THE EVOLUTION OF AN AMERICAN SYSTEM: OUR HERITAGE FROM THE PAST

Physical education in the United States is the product of three powerful forces: the old-world tradition, the new-world environment, and the expanding democratic ideals of the country.

Our dominant heritage of education came from northern Europe. Since early American settlers were transplanted Europeans, traditions from this source naturally became the early guides. Furthermore, the

<sup>13</sup> Howard J. Savage, *Games and Sports in British Schools and Universities* (New York: Bulletin #18, Carnegie Foundation for the Advancement of Teaching, 1926), pp. 5-6.

history of American physical education is a function of the social and cultural setting of the various periods in which it exists. The forces of tradition have been tempered and redirected to meet the changing needs of people animated by new ideals in a new world environment.

Physical education, as we have seen, has been and continues to be a reflection of the traditions, environment, and ideals of the times even more than other aspects of life or education. Other than conditioning for military training, and the early conception that primitive games and sports were fun, the earliest settlers in America brought no ideas of systematized physical education—for at that time none existed in Europe. Furthermore, with every waking hour devoted to hewing forest, tilling fields, building shelter, and fighting off hostile Indians, little surplus time or energy was left to American colonists for play. In addition, life under the Puritan code of religious and social teaching in New England was stern and serious. Work was deified; play was frowned upon as a waste of time and often an invention of the devil. Since culture tends to mold physiques, habits, character and personality, we have a fairly accurate image of the typical Puritan of his day. To the north, however, in what was to become New York, the Dutch were bowling on the lawn, skating and sledding, hunting, and fishing. To the south, in Virginia Colony, such sports and games as existed in the British Isles at the time flourished and were encouraged by officials in that colony in line with the long history and tradition of games and sports even then existing in England. Weston, in referring to the evolution of American physical education, calls it "the battle of the systems."<sup>14</sup> Each decade after 1840 saw from two to eight million immigrants pour into America. These people naturally brought with them their national folkways and mores, their games, dances, hobbies, interests, and standards of conduct. The Germans imported German gymnastics and the Turnverein, the Swedes their Swedish movements and medical gymnastics, and the sports-minded British their games and sports. None of these alone satisfied the cultural needs of all. Our new American way of life and the forces of democratic environment very early began to mold the personality of the people. The result was that the newness of and interest in these imported systems gradually wore off and innovations began to appear. Granting the influence of early foreign institutions on American education, such as the German kindergarten (taught in German) at Watertown, Wisconsin by Mrs. Carl Schurz (1855), and the development of the normal school at Lexington, Massachusetts by Horace Mann for the special education of teachers (1839), changes were af-

<sup>14</sup> Arthur Weston, *The Making of American Physical Education* (New York: Appleton-Century-Crofts, 1962), p. 24.

fects in curricula and administration in line with American ideas and ideals. Similarly American physical education evolved its own patterns and ideals in keeping with American culture and folkways. Games and sports gradually took a more prominent place in physical education programs so that by 1914 they replaced formal gymnastics as the core of American physical education programs.

A brief chronology of historical episodes in the development of American education, with special relationships to physical education will suffice to bring us up to the mid-twentieth century.

1751—Founding of Benjamin Franklin's Academy in Philadelphia in response to the demand for a more democratic and practical type of secondary education in contrast to the Latin Grammar School based on the classics. Provision made for students to engage in games, sports, and swimming.

1827—First interclass football game at Harvard.

1837—Catherine Beecher, founder of Hartford Female Seminary and later author of *Physiology and Calisthenics*, insists that no program of education for women is complete without attention to physical development.

1833—Founding of Oberlin College, the first institution of higher education to admit women.

1839—The first American normal school for the training of teachers at Lexington, Massachusetts.

1848—First Turnverein (German gymnastic society) formed in Cincinnati.

1853—Boston requires daily exercise for school children.

1859—First intercollegiate baseball game, Williams vs. Amherst.

1860—First American kindergarten in English at Boston. The place of play in education stressed.

1861—Required physical education program started at Amherst College by Edward Hitchcock.

1861—Normal Institute for Physical Education established in Boston by Dio Lewis.

1866—California, first state to legislate for school physical education.

1867—United States Office of Education established as a "service agency."

1874—"The Kalamazoo Case" legalized tax supported secondary education in Michigan.

1879—Dr. Dudley Sargent becomes Physical Director at Harvard and suggests that the American system of physical education be eclectic, saying:

a small Florida town who taught the school kids gymnastics? In so doing, he got them by the hundreds off the streets, out of the hot rods, away from the juke boxes and the corner drug store, gave them poise, coordination, a sense of beauty and a feeling for their bodies, as well as skills beyond measure. This without a word of praise or appreciation.<sup>16</sup>

The frontier experiences, unique perhaps only to early Americans, developed in them the attitudes, ideals, and feelings so strongly reflected in our games and sports today. Until recently, the U.S.A. has had no place for any but the muscular aggressive male. With trails to blaze, the west to conquer and develop, little time remained for art, literature, and science until a later period. Yet the cultural expectation and deeply-rooted admiration for physical fitness and prowess, going back to the times when these qualities were of obvious survival value, still remain. The desire to achieve, press on, to excel became ingrained in American character starting with the frontier experiences and carried into sports and games, into politics and business. To the American, most of life is a game.<sup>17</sup>

Our schools and the lessons learned on the playground, in the gymnasium, and on the athletic field have kept us free. Over the years, self-government was possible only from the lessons learned. National unity created out of tremendous diversity came from a common language and common heritage, resulting in part, at least, from our games and sports. Out of the many we made one from the millions of immigrants who stormed our shores in the decades after 1840.

Commager states it well in saying that the United States:

With the "most heterogeneous of modern societies—profoundly varied in racial background, religious faith, social and economic interest—has ever seemed the most easy prey to forces of riotous privilege and ruinous division. These forces have not prevailed, they have been routed, above all, in the school rooms and on the playgrounds of America. In the classroom, the nation's children have lived and learned equality—all subject to the same educational process and the same disciplines. On the playground and the athletic field, the same code has ruled—with the reward of honor and applause heartfully given to achievements to which all could aspire equally. The roster of "foreign" names on our high school and college football teams has seemed worth a feeble joke to many an unwitty radio comedian. Who can seriously

<sup>16</sup> John R. Tunis, *The American Way in Sport* (New York: Duell, Sloan and Pearce, 1958), p. xi.

<sup>17</sup> *Ibid.*, p. 17.

doubt that the cause of democracy is served when it is a Murphy, a Schwartz, a Groglio or a Levitsky that the cheering stands applaud?<sup>18</sup>

Thoughtful Americans are concerned about their schools today. They are not exactly certain what to expect of them. The pressure for more science, mathematics and foreign language, the phenomenal growth of higher education, the new demands of government, the military and the professions tend to narrow education in the interests of specialization. Furthermore, the school is no longer the sole educational influence as in the 19th Century. Mass communication media such as the movies, radio, television, newspapers,<sup>19</sup> and magazines are strong competitors in shaping the ideas and ideals of youth.

While expecting the schools to teach everything from driver education and typing to world history and nuclear physics, parents also expect the school to perform its broad social functions of building character, democratic citizenship, and mental and physical health. Commager states that

There is a further difficulty, the one that most of us are reluctant to recognize. Schools reflect the society they serve. Many of the failures we ascribe to contemporary education are in fact failures of our society as a whole. A society that is indifferent to its own heritage cannot expect schools to make good the indifference. A society that slurs over fundamental principles and takes refuge in the superficial and the ephemeral cannot demand that its schools instruct in abiding moral values. A society proudly preoccupied with its own material accomplishments and well-being cannot fairly expect its schools to teach that the snug warmth of security is less meaningful than the bracing venture of freedom. In all this, to reform our schools is first to reform ourselves.<sup>20</sup>

Education, including physical education, in the broad sense is the sum total of the experiences through which a person learns. As physical educators and athletic coaches we cannot greatly influence the social order directly but in a democracy we, as individuals, have wide opportunity to promote ideas in education that we favor, and oppose vigorously those to which we object. This means standing up and being counted by the thousands from every school and from every community.

Games and sports have for years been encouraged by people who

<sup>18</sup> Henry Steele Commager, "Our Schools Have Kept Us Free," *Life* (October 16, 1950). © 1950 Time Inc.

<sup>19</sup> Especially the sports section.

<sup>20</sup> *Ibid.*

had very little idea of the reasons why they supported them. Many schools have entered into games haphazardly, without regard to what value they might possess as an educational instrument.

Good physical education, in the interests of its educational objectives and its contributions to social democracy and the heritage of our national life, must insist upon certain priorities in order to avoid the hazards which endanger its contributions to individual education and American culture. Some pertinent facts are:

1. Leadership, time allotment, facilities and equipment in physical education must be available, equally, to all who wish to participate; our first obligation is to *all*.
2. Priority for the above must come in the following order:
  - (a) A sound instructional physical education program under trained leadership for *every* pupil.
  - (b) A well-organized intramural sports program available to all.
  - (c) An interscholastic athletic program of "sensible" proportions and under a sound school athletic policy.
3. If these activities are recognized as integral parts of the educational curriculum, they should be supported by public taxation, the same as home economics, industrial arts, or history. At present the commercial exploitation of athletics makes it a business venture which de-emphasizes its true educational values.
4. Sports editors, being more interested in the commercial than in the educational aspects of school and college sports, have a powerful influence on public attitudes usually toward acceptance of athletic practices often inimical to best education. Somehow, the reading public, largely parents, should urge editors to recognize the tremendous potential for orienting readers to sounder educational conclusions in reporting games and sports.
5. Finally, research findings in child growth and development, mental hygiene, and psychology should not be ignored to the extent that we push little boys and girls into burning competition before they are emotionally and physically ready for it.

American education is undergoing soul-searching and evaluation at all levels. The water is being squeezed out of the educational process. Results must be planned for; to be convincing they must be shown. Physical education programs are under fire in many institutions. Some at the college level have already been eliminated as unjustified. Childhood games have been overadultized. Sportsmanship is often forgotten. Play becomes work and sport a business.

The nation is in peril. Education today cannot afford to deal with

trivialities. But is physical education a triviality? In many schools it is. The place to do something about it is in the schools and especially with a start at the elementary school level where eye-hand coordination, self-confidence, quick judgment, rapid decision, adequate musculature and strength, respect for the rules and rights of others, and working for a common end are potentially inherent in the many situations on the playing fields. To start at the junior high school is too late.

Sports is an American religion. Elsewhere we have stated that religion, as a search for a value, underlying all things, represents the most comprehensive of possible philosophies of life. The ultimate principles and logical conclusions to which we come, as individuals, concerning the end results of sport will determine our thinking and action. The collective end results of this philosophical process will affect tremendously not only the education of our children but the future culture of our nation as a whole.

## SUMMARY

Sports and games have been a basic part of human experience since the time of primitive man. Originally, they were a large part of man's daily life, for their results were necessary to survival. Although they have carried down to present times, through a multiplicity of changes in emphasis and in kind, they are still essential to survival at an optimum level of living.

The early Greeks included physical education as one of the essential parts of the education of youth. They stressed physical, moral, and aesthetic education, and the latter two derived, in great part, from the former. All education functioned around the gymnasium, so a great deal of the culture, the moral principles, the philosophic ideals were based on activities of physical education. Some aspects of early Greek education were less idealistic, since Sparta was entirely militaristic, but that which history has passed on to us of a nature acceptable to our democratic way of life is the non-Spartan education.

The Romans overran the Greeks, but, in so doing, they took on the educational "coloring" of their captives. The Romans were gifted in areas of law, organization, and in practical arts. The Greeks were outstanding in areas of intellect, aesthetics, and imagination. The militaristic nature of the Romans diverted much of physical education to the purpose of making men strong for battle. Physical education became physical training, and great deeds of participants were glorified in public spectacle. "Spectatoritis" came into the historical scene, as untold thousands crowded into the arena to witness gladiatorial combats, slaughtering of captives, and an almost unbelievable assortment of brutal activities. Gambling and bribery ran rampant through the circus arena, and these have been able to make a very dubious contribution to sports in even our enlightened society. Rome, by spreading its version of education over tremendous areas, did cause the

the Olympic philosophy, based on sportsmanship, the spirit of amateurism, and freedom from political, racial, or religious bias as a positive force for international good will.

Gardiner, E. Norman, *Athletics of the Ancient World*. London: Oxford University Press, 1930. A detailed treatment of the subject.

Marrou, H. I., *A History of Education in Antiquity*. New York: Sheed & Ward, 1958. Stresses the fact that we are heirs of the Greco-Latins, and many things in our system of education (including physical education) derive from theirs.

McCloy, C. H., "A Half Century of Physical Education," *The Physical Educator*, October 1960, pp. 83-91. Interesting observations and experiences of one of America's great leaders in physical education and replete with historical significance.

Monroe, Paul, *A Textbook in the History of Education*. New York: The Macmillan Co., 1916. A scholarly approach to the history of education up to the twentieth century.

Rice, Emmett A., John L. Hutchinson and Mabel Lee, *A Brief History of Physical Education*. New York: The Ronald Press, 1958. Covers the history of physical education from early times to the present with greatest emphasis on developments in the United States where physical education is more highly organized.

Tunis, John R., *The American Way in Sport*. New York: Duell, Sloan and Pearce, an affiliate of Meredith Press, 1958. Indicates how sports over the years has become a kind of national obsession in the United States.

Van Dalen, Deobald B., Elmer D. Mitchell, and Bruce L. Bennett, *A World History of Physical Education*. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1953. Presents a basic world-wide survey of the history of physical education.

Webster, R. W., "The Heritage of Physical Education," *The Physical Educator*, March, 1960, pp. 14-15. Some historical antecedents to present-day physical education, athletics, and intramural sports.

Weston, Arthur, *The Making of American Physical Education*. New York: Appleton-Century-Crofts, 1962. A concise history of American physical education documented by early literary contributions which have proved to be historical milestones.

Woody, Thomas, *Life and Education in Early Societies*. New York: The Macmillan Co., 1949. Treats the history of early education from the point of view of the "whole" man and therefore does not bypass the physical.



# 13

## PHYSICAL EDUCATION IN PROSPECT: A LOOK AHEAD

Whether or not physical education will stand the test of the times will depend upon intelligent interpretation and application of its objectives and functions.

JOHN SUNDWALL

IN COMPARATIVELY RECENT YEARS, THE WORD "IMPLEMENTATION" HAS found great favor in educational parlance. It has become such a useful word that it sometimes seems that its meaning has been lost on the user and that it now fills out sentences instead of plans. Will Rogers had somewhat this idea when he suggested that many people say, "have eaten" who "ain't et" regularly. It is so readily possible to know words and their meanings, without ever making the dynamic relationship to function, that vocabularies may increase while their implications die *a-borning*. The previous chapters have been devoted to an attempt to establish a basis in philosophy and principles which may indicate what ought to be understood by the physical educator. Looking ahead to functioning programs in physical education comes under the general heading of that overworked word, "implementation."

In order to have any clarity in looking at the prospect for physical education, it is necessary to find for oneself a vantage point. Such a position may be assumed only by building it of the circumstances which now exist. We are what we have become; we shall be what we are plus what happens to us, or what we make happen. Physical education is what we have made it, or permitted it to be. What it will be rests on our philosophy as implemented from our present-day base of

operations. We must, therefore, look at current problems, the *status quo*, and make our programs in light of both our timeless and irrevocable needs and those new ones which are occurring in our fluid and rapidly changing society.

This multi-discipline area called physical education is the most misunderstood child in the whole educational world. It could be said to be almost totally misunderstood, for its parents are not in complete agreement, its neighbors have as many opinions of it as there are neighbors, and it is completely bewildered most of the time. The miracle is not that it tends to delinquency; the miracle really is that it is not completely and irrevocably a mass of chaotic twistings and twinings. This is not to say that nobody knows the answer, for many do. This is to say that much—so much that it is a tremendous challenge—is yet undone in getting the information, the right answer, into functioning programs at the “grass-roots” of our society.

The educated physical educator will know the philosophy and the principles of his profession. Less than this represents a player in a game which he knows not, and his honest mistakes will lose the game. Knowing what needs to be done, he must take stock of the problems of now, the obstacles in the path of bringing good program to fruition. The specific problems are so numerous as to challenge one's credulity, but certainly the major ones are worthy of a closer look with a view to reducing them to less formidable proportions.

### THE CONTINUED STRUGGLE FOR TIME AND SPACE

When we consider the cumulative knowledge of the past and the tremendous proportion of it which has accrued in the last thirty years, we must have grave concern about the problem of transmitting it to our children. Nuclear physics is *based upon* all the physics that anyone could possibly know a few years ago. Thus, much of the important learning today must be acquired on top of all the learning that was possible when our present concepts of the school day were formed. It is a serious problem when we view only the increased need for transmitting technological information, but the problem is further enhanced by such discoveries as the fact that foreign language can best be taught if started in the elementary grades. It may be noted that it can also be introduced most effectively soon after the birth of the child, but mothers did not have the “new education,” so they are going to postpone such exposure until the children get it in school. And that is the crux of the problem!

Schools are being asked to add continuously to the quantity as well as the quality of their offerings. With a population explosion,

actually, more of an endless, increasing crescendo of thunder, making rural into urban areas faster than the census can be taken, schools are burdened beyond their elastic limits to take care of their enrollments. These are facts of which most people are somewhat aware. The facts call for some major decisions in education, and to these decisions far too few will be giving their best efforts.

Physical education tends to be viewed in many schools as a fringe benefit. When more time is needed for other subjects, physical education can readily join the ranks of the expendable. Thus, a major problem of this important area of education is for it to make itself known as an essential part of total education. This will never happen by chance; it will happen by design, by the communication of its worth to every decision-making group in the educational hierarchy.

The matter of time for all the classes needed is so serious that some school systems have gone on split sessions, and many are now considering extension of the school day. If the school day is extended, physical educators must be alert to their responsibilities in helping plan physical education into such an extended program. Failure to be a part of school planning groups can cost the physical education teacher his chance to do his vital part in the education of children.

When we consider that everything that we know of the education of children stresses the need for developmental activities, which physical education represents, as a daily program, we recognize that we have never yet achieved an adequate time allotment. In fact, the usual state laws which require some physical education apply to secondary education rather than to the most important formative period, the elementary school period. If we have not been allocated time, in this, the "pre-explosion" era, it is apparent to even the least discerning that time for the physical education of our children is one of the most serious problems on which we must base our future planning.

In attempting to isolate our problems of the present in order to look to an intelligent pattern for the future, we must also recognize the problem of space. In this instance, we refer to terrestrial space rather than the more glamorous matter of outer space. Our concern is simple, mundane space in which to have activities of physical education. It is not uncommon for architects and other planners of secondary school buildings to invite physical education experts to assist in planning gymnasium space, locker rooms, and various athletic facilities. It is highly uncommon for such cooperation to be asked in planning elementary school buildings and areas. It, therefore, naturally follows that at the level of greatest need the least is done to provide for that need.

Any physical educator who is even partially cognizant of his profession must have knowledge of what is adequate play space, both indoor and outdoor, for any given school population. If such information is not in his head, it is available in many of the profession's publications. If the physical educator can easily demonstrate that he has a thorough knowledge of the space needs, the space planning board will more than likely ask and value his opinion. The point need not be labored, but it is more than evident that a whole fleet of boats has already been missed on the matter of getting physical education represented in planning for school space. The future must, in the name of justice and humanity, be vastly different—even, hopefully, to the point of adequacy.

### SHALL WE LEARN FROM LESSONS OF THE PAST?

It has been suggested by some colleagues in education that physical education is still trying to live on the honors of ancient Greece. There is no question that it is important to know that early in history people recognized that physical development is an essential part of total development. It is important to point to the ancient Greeks because they attained, via this philosophy, one of the positive peaks in the line of growth of civilization. However, it is just as important to know the fact that physical education retrogressed markedly when the Spartans, the Romans, and others viewed it as utilitarian only, as a war weapon in the same category as strong lances and protective shields. Although history is replete with instances of calamity from "looking back," there are even more examples of failure from not taking advantage of past experience. We do not live *as* people lived in the past, but it is all too obvious that we do live *because* they did. A little bit of analysis of that point may indicate why we must, in looking ahead, review a few of the lessons of the past. Mark Twain once said, "One should be careful to get out of an experience only the wisdom that is in it—and stop there; lest we be like the cat that sits down on the hot stove lid. She will never sit down on a hot stove lid again—and that's well; but also she will never sit down on a cold one anymore." We may take caution in looking back and get only the wisdom that's in it.

1. Studies of primitive man have shown us that physical development for survival alone is basic. In a simple society, as then existed, survival was the primary goal. We need only do a little analytical thinking to translate present-day survival needs into relatively simple terms. It is probable that our needs, for "optimum survival," are far greater than were those of primitive man.

2. The Greeks recognized that physically fit individuals were more well-rounded and, therefore, better educated. They utilized physical education for development in other areas which we now recognize as pertinent, social development, for example.

3. The Spartans showed us that physical development for utility in war, rather than for total development of the individual, makes physical education a one-track road. It is robbed, in these circumstances, of its tremendous potential for developing personable, courteous, democratic, creative, and appreciative individuals.

4. The Romans have given us evidence of the kind the Spartans evinced, except that even that militaristic regime could not keep from digesting some of the better values of the Greeks whom they swallowed.

5. From the Germans we have had several lessons. From the time of Bismarck, we learn of physical education with excellent organization, publicity, and specific activity with heavy apparatus. Combining of social groups with physical activity groups came to us via the Turner Movement. Later, Germans, under Hitler, prostituted physical education into fitness for war and into propaganda devices. The Hitler Youth Movement has taught us how never to utilize youth programs.

6. By the Swedish programs, we are again reminded of the danger of using physical education for the main purpose of "building men" for war. However, we have additional benefits from them in a new area, Medical Gymnastics. Physical therapy can also look back to such program as its meagre beginning.

7. The Danish people devised physical education which was peculiarly fitted to the rural people of Denmark. We have used parts of the Danish system, but we found that it did not transplant, wholesale, into our urban society.

8. Lieber, Follen, Beck, Dio Lewis, Wood, Gulick, Hetherington have given us parts of a program of physical education which now form part of our current base of operation.

ble avenue for removal of some of the waste products of the body. The answer to the whole array of problems implicit in these observations is physical activity. It isn't quite that simple, but it's the best two-word answer in our language.

In this effort to take a long look at a few of the major problems from which we may take heed of a new direction, or a speed-up in a present right direction, we must take cognizance of one of the major educational oversights in the history of mankind. We don't have to elaborate on the softness of the American. That is being done by every medium of communication in vogue today. We can only bow to overwhelming evidence. The educational oversights have to do with the simple fact that we live in a physical body which depends on activity for its development and maintenance. Further, this body has much of its horoscope written in its very early years. Originally, appropriate activity was mandated by the demands for survival. Currently, some kind of survival is possible with almost infinitesimal amounts of activity. When we recognized the debilitation which was descending, plague-like, on our people, we mandated some high school requirements in physical education. Corollary provisions were not made, but the mandate was made. The mystery may never be solved as to why it was deemed that activity should start in the human animal at approximately thirteen years of age. It must have been assumed that something would take care of the child in those early, formative years. Something does take care of him. Mother takes care that he suffers no hardship nor unsafe activity; father takes care of his transportation so he doesn't walk; and the school takes care of his activity by some minimal classroom calisthenics. This, of course, is an exaggeration, but it is closer to the American average than is decent.

An attempt has been made to stress the meagreness of quality and quantity of school physical education. In isolated places, these maledictions are really false accusations, for many sound programs of physical education do flourish. It is impossible, however, to walk very far in any direction without stepping into the mire of impoverished programs, absence of programs, or substitution of something else for physical education. Most of us have this mire on our shoes and are looking frantically for the right kind of polish to remove or to cover it.

At the risk of complete redundancy, some restatement of the problems of present-day educational programs may lend clarity. Since a base for looking into the future is the objective, it may be well to identify that base clearly. It has been pointed out repeatedly in this volume that physical education is multi-disciplinary, i.e., it draws on scientific facts and established philosophy from a large number of sciences. Among the many facts that we know is one very simple one,

the fact that vigorous activity is essential to optimum growth and development in early childhood. A corollary fact is that, failing to acquire appropriate activity at this stage, the child may never achieve his optimum development. This vigorous activity is a learning activity as well as a developer of vital organs, bone, and muscle. It occurs in a social situation, if properly given, so social learnings obtain. At this age, considerable learning of emotional control is essential to both social and emotional development. The child cannot get this physical education in proper quality and quantity outside the school. It is part of his education, and, at the ages involved in elementary school, it is a vital part of his education. The child needs this daily, and he needs to progress from low-organized activities toward skill learning. At this point, one is tempted to ask, "Does this tell you anything?" It tells one and all that elementary physical education is the *most important* school physical education. Thus, the failure of American education to provide ample quality and quantity of elementary physical education is a black mark against it, irrespective of where the failure occurs or the reasons for it.

If the child is given progressive, planned physical education through the first eight years of school, he will have acquired a variety of skills, as well as, hopefully, the optimum development to which he is entitled. At this stage, roughly, he may participate in the full range of activities with excellent results. He is now blossoming in activity, and further, well-planned, progressive physical education will bring him into full bloom. Without this opportunity, he will be short-changed in his education. On this basis, short-changing is not a novel educational practice.

In some kind of multi-sectioned "nutshell," then, we have the over-all problems of physical education in our schools. As a basis for planning for the future it does not lack fertility. As a platform from which to leap into the educational swim, it lacks considerable stability. What are we to do about it? Are we going to have physical education or chaos?

### WHAT IS AHEAD?

It seems evident that the future of American education will be turbulent. There is no easy answer to such problems as increased enrollments, rising costs, increased taxes, and ever-increasing increments of subject matter to be added to a bulging teaching schedule. The ominous question of whether we shall have physical education or chaos is going to be answered, for better or for worse, in a foreseeable future.

Teacher-education institutions have a heavy share of the responsibility in what we shall do about physical education. By whatever means are necessary, these professional programs in physical education are going to have to graduate dedicated, educated students into teaching. The stress on accreditation will eventually be a factor in the quality of students in teacher education. However, only expert teaching and a climate for proper learning can give us those physical education teachers who will have knowledge, vision, and determination which are ingrained beyond chance of dilution or suppression. It will not be enough to possess an array of skills. A broad, general education is basic. Knowledge of principles and philosophy of physical education and of the areas of growth and development must be considered tools as much as the ability to teach a wide variety of activities. The graduate must be able to evaluate pupil progress, and he must be able to counsel on the basis of evaluation. These, and a set of attributes that will make him a teacher on a par with other teachers in the school, are essential as a minimum.

Research will have to be meaningful. It is not enough to ascertain a series of answers; the research must get into the stream of education, must be used in teaching. Issues are going to be faced squarely, or they are going to be lost causes. Good programs are justifiable; they must be justified in unequivocal terms. When the physical education teacher is asked a question about his life's work, he must be able to do more than mumble some incoherent phrase about "total development." He must know about total development, but he will have to talk to the mother or father about things as specific as stomachs and backs. We never have sold, and never will sell programs on vague, uncertain generalities. If physical education is to take its rightful place in the educational program, the overwhelming evidence for it must be translated to those who decide its fate. Mathematics doesn't have to make a case for itself to stay in education; physical education must present the excellent case which it has or it will be one of the fringes with which schools will readily dispense. Many new facts will be uncovered by excellent research. The presently known facts, and they are legion, are far more than ample for excellence if they are presented intelligently.



istrators, and of the teachers themselves is a prerequisite to the opportunity to teach the children. It will never be done adequately by "bandwagons," by superimposed dictum, or by lip service. It will only be done when several thousand physical educators start in unison to perform the full gamut, not just parts, of the educational prerequisite. The wisdom of utilizing these thousands of well-informed physical educators at the "grass-roots" level is unquestionable. It is not sufficient that *some* physical education teachers persuade *some* administrators to permit a sound program. It is time for individual states, and individual units within states, to make a mass improvement of programs. It requires organization, surveys, publicity, approval of state officers, and a great deal of hard work for all. One or two people can't do it; the "bandwagon" won't do it; the national office can only help; but the sum total of physical education teachers can do the job. This matter has long since gone past the stage where propaganda will give it life. The dissemination of facts, clear-cut explanations, and sound proposals will be the only means of getting the public informed. It is no reflection on varsity sports that a terrifying percentage of the people believe that those sports are all there is to physical education. The future of physical education in our schools rests precariously but simply on letting the parents in on our too-well-kept secret, *what it is and what it does*. P.T.A. groups and the various other citizen groups who are concerned with education of children must be informed. High-sounding phrases, technical terminology, and vague references will not get action. Everyone who speaks for physical education must speak understandably and specifically in language which "fits his mouth" and which also fits the listening ears.

While engaged in the matter of educating the public to the purposes, the nature of, and the need for physical education, it would be another major oversight if all efforts were not predicated on starting at the right place, in elementary education. This latter concern is a many-headed problem. It must get started long before we shall have adequate facilities or professional personnel available. In-service education and utilization of space on a dual-purpose basis will, of necessity, be the answer to immediacy. Every effort must be expended to get coordinated and intelligently organized movement to the end of having universal elementary physical education. Every parent who knows physical education wants it for his child. It is long past due, and our nodding in mutual agreement at our professional conferences and conventions (helpful as this may be in some ways) will not get the job done. The work must be done at the local level, and at all local levels, in concert with all the guidance, legislation, and other assistance available at other levels. This is absolutely vital to the avoidance of

chaos. Envision thousands of Paul Reveres, with fully as important a mission, and you will have some concept of what is urgently needed.

Something must happen to existing programs. The problems are not confined to starting new ones and revising relatively nonexistent ones. Every physical educator, whether he is also a coach, must get his house in order soon, or the house will be razed. This means a return to basic principles, a planning of program according to acceptable standards, and effecting a functioning program which can be evaluated to its credit. It is now essential that we recognize that varsity sports are not a substitute for total physical education, that every boy and girl in school is entitled to the same amount of concern for his or her welfare as is a star athlete, and that the hours in a class in the gym are as important to the unskilled as the most challenging game is to the star. One of the most ridiculous situations in education arises when athletics are pitted against physical education in an "either-or" interpretation. It is not one or the other that we choose; we choose both—excellently done according to sound educational practice. When either is below educational standards, it needs immediate investigation and, of course, correction.

Vague generalities have been decried in preceding pages. It would be the height of folly to have decried them in similar vagueness. In order to give some additional specificity, a series of suggestions which may serve as clarification or repetition for emphasis is here offered to the physical education teacher.

1. Be conversant with space requirements, both indoors and outdoors, for various activities and various sizes of groups.

2. Be able to give intelligent advice on showers, lockers, storage space, multiple-purpose space, rest rooms, exits, and entrances when planning is being done for facilities.

3. Be able to advise individual parents on ways to help or guide their children in activities at home.

4. Be able to advise classroom teachers on appropriate and feasible activities for elementary school children.

5. Know and be able to explain what comes first in physical education and the details of progression afterwards.

6. Understand and be able to clarify the problem of safety in physical education. How much safety may or must be sacrificed in various activities must be made clear.

7. Understand and be able to explain clearly such concomitant learnings as emotional control, social adjustment, leadership qualities, and development of personality—as these apply to physical education activities.

8. Know kinesiology and be able to explain muscle structure and

function in terms that parents and participants can understand. Try to be understood, not impressive.

9. Understand growth and development to the point where you could make an understandable presentation on physical education's contribution.

10. Be cognizant of and let the community know the facts of relationship between physical activity and academic learning.

11. Plan the physical education program according to sound educational practice. Utilize the full gamut of program plans; publish and publicize them, down to the daily lesson plans; EXECUTE THEM as planned.

12. Utilize student record systems; evaluate student progress; be a guidance counselor within your limitations.

13. Be a part of your school faculty; make contributions at meetings; let your program be known and discussed.

14. Use demonstrations, exhibitions, play days, and every educational device to show the community what is being done. The alternative is to perpetuate glamor sports as the symbol and total interpretation of physical education.

The foregoing suggestions make no attempt to serve as more than specific reminders of some minimal activities necessary to lift physical education by its bootstraps. The fact that society is headed at a dangerous pace toward a completely sedentary life keeps physical education from being demanded. The burden of achieving a permanent and important place in the American school is squarely on the shoulders of all who represent physical education. Since our citizens do not take the lead in protecting themselves or their children, millions have failed to protect themselves against polio, some extraordinary measures must be utilized to accomplish what should be automatic. But freedom implies this choice. Physical educators understand freedom in our democratic life, and they must understand that missionary zeal, sweat of brow, and utilization of every bit of ingenuity and skill are urgently needed to save our "soft-living" citizen from relegating his salvation from softness to the waste can. More than a profession is at stake in attempting to save an entire nation from that most hopeless lament, "IF I HAD ONLY KNOWN!"

## ORIENTATION READING

Conant, J. B., *Education in the Junior High School Years*. Princeton, New Jersey: Educational Testing Service. Some recommendations as to the place of Junior High School in educational organization.

- Hull, J. Dan and H. H. Cummings, "How Fare American Youth in 1962?" *School Life*, January-February, 1962, pp. 13-17. An up-to-date look at some problems of school drop-outs and some practical suggestions for education.
- Indiana State Board of Health and Indiana State Department of Public Instruction, *Indiana Physical Education Score Card for Elementary and Secondary Schools*, Indianapolis, Indiana, 1960.
- Jones, Edwina, "Forecast for the Future-Physical Education," *Journal of Health, Physical Education, and Recreation*, April, 1960, pp. 89-90. Some suggestions as to what our National Association may do to help physical education in the future.
- LaPorte, Wm. R., *Health and Physical Education Score Card for Elementary Schools*. Los Angeles, California: The University of Southern California Press, 1938.
- , *Health and Physical Education Score Card for Junior and Senior High Schools*. Los Angeles, California: The University of Southern California Press, 1947.
- Makechnie, G. K., "At the Crossroads," *Journal of Health, Physical Education, and Recreation*, January, 1959, pp. 24-60. Suggestions as to what to do about physical education.
- Oberteuffer, D., "The Years Ahead," *Journal of Health, Physical Education, and Recreation*, September, 1959, pp. 36-37. Some excellent prospects ahead.

# INDEX

## A

- Activity:
  - big muscle, 32
  - developmental functions of, 28
  - importance of, 28
- Adapted physical education, *defined*, 119
- Adjustment, fundamental law, 69
- Administration:
  - components of, 164
  - coordinating in, 163
  - directing in, 163
  - evaluation in, 170
  - function of, 162
  - organizing in, 165
  - planning in, 164
  - purpose of, 162
- Administrative process, fine aspects of, 164
- Administrators, duties of, 163
- American, evolution of physical education, 207
- American Association for Health, Physical Education and Recreation, organizational structure (chart), 167
- American physical education:
  - chronology of historical episodes, 209-211
  - requisites for good, 214
- Analysis, functional, 128-129
- Andre, Christian, 201
- Appreciation:
  - defined*, 57
  - teaching for, 57, 60
- Arnest, Bernard, 54
- Art:
  - defined*, 53, 62

## Art (Cont.)

- physical education as, 53
- Athenian education, 195
- Athletics, as kinaesthetic art, 54
- Attitudes:
  - ages 6-9, 150
  - origins of, 28
  - toward physical education, 127
- Audio-visual aids, in skill development, 139
- Axtelle, George E., 18

## B

- Ball-playing games, universal in U.S.A., 116
- Basedow, 201
- Bennett, Bruce L., 204
- Biological trinity, components of, 86
- Biology:
  - implications for physical education, 38
  - physical education and human, 38
- Body, as a medium of expression, 56
- Bookwalter, Karl W., 119
- Brain:
  - a "hand-made organ," 89
  - localization not exact, 115
- Breckenridge, Marian E., 28, 116
- Brubacher, John S., 48
- Bucher, Charles A., 32
- Bukh, Niels, 204

## C

- Carrel, Alexis, 23
- Cassidy, Rosalind, 56

- Chisholm, Leslie L., 145  
 Citizenship, acquired in school activities, 95  
 Civilization, violates biological laws, 70  
 Comenius, John Amos, 11  
 Commager, Henry Steele, 212, 213  
 Conant, James Bryant, 1  
 Concomitant learnings, 92  
 Conflicts, cultural, 73  
 Constitution, American, 25  
 Coordination, administrative: 168  
   *defined*, 168  
   requisites for good, 169  
 Counts, George, 23  
 Course, *defined*, 148  
 Cowell, Charles C., 32  
 Cultural anthropology:  
   *defined*, 45  
   physical education and, 46  
 Cultural change:  
   individual leadership and, 74  
   via physical education, 66  
 Cultural exchange, via games and sports, 77  
 Culture:  
   American, 65  
   *defined*, 4, 45  
   nature of American, 66  
   of playing fields, 74  
   physical education in a changing, 65  
   Russian political direction of, 46  
 Cumulative records:  
   criteria of good, 184  
   importance of, 183  
   value of, 185  
 Curriculum:  
   components in design, 156-158  
   content or activities, 157  
   *defined*, 148  
   "developmental task" concept in planning, 147  
   motives in planning, 154-155  
   philosophy into action, 145  
   planning and development, 147  
   questions important in planning, 145  
   requirements of a successful physical education, 177  
 Curriculum design, components of, 156  
 Curriculum planning and development, interrelated problems of, 146  
 Curriculum progression, ages 6-18, 150-154

## D

- Democracy:  
   contribution of public schools to, 212

## Democracy (Cont.)

- meaning and scope, 90  
   nature and function of physical education in, 83  
   on playground, 26  
 Denmark, physical education in, 204  
 Detwiler, S. R., 115  
 Development:  
   *defined*, 109  
   goal of child, 112  
   interrelatedness of, 102  
   place of play in human, 111  
 Developmental task, *defined*, 147  
 Developmental tasks, illustrations, 148  
 Dewey, John, 17  
 Diem, Carl, 203  
 Direction:  
   an aspect of administration, 226  
   and teamwork, 168

## E

- Eagan, Edward P. F., 78  
 Economics, function of, 73  
 Economy, a changing, 73  
 Education:  
   aesthetic, aspects of, 55  
   *defined*, 69, 93, 190, 213  
   dual functions of, 84  
   function of, 46  
   general, *defined*, 29  
   goals of, 111  
   liberal, 6  
   philosophy of, 27  
 Emotional responses, sources of, 53  
 Emotional responsiveness, 57  
 Empathy:  
   *defined*, 54  
   in physical education, 54  
 English:  
   contributions of, 205  
   Education Act of 1944, 205  
   sports for the fun of it, 206  
   sports traditions, 207  
 Ephebic Oath, 196  
 Evaluation:  
   administrative, *defined*, 170  
   contrasted with measurement, 177  
   function of, 176  
   importance of, in a modern school, 176  
   specific purposes of physical education, 178  
   of student progress, 176  
   use of tests in, 178  
 Evaluation (administration), function of, 170

Evaluation (administrative), *defined*, 170  
 Exceptional children, *defined*, 118  
 Exceptional, physical education of the, 118

## F

Fitness, physical, 179  
 Folkways, *defined*, 4  
 Form, principle of, 58  
 Frank, Lawrence K., 100  
 Froebel, Friedrich, 12  
 Functional analysis, *defined*, 128  
 Functional, *defined*, 104  
 Function pleasure, 57  
 Functions, various, of American public schools, 93

## G

Gabriel, Ralph H., 23  
 Games:  
   learning potentials, 18  
   moral equivalents of war, 84  
 Games and sports, more valuable than induced movements, 88  
 General education:  
   *defined*, 29  
   function of, 29  
 Germans, contributions of, 200  
 Gesell, Arnold L., 138  
 Goldstein, Kurt, 115  
 Greek, contributions to culture, 197  
 Greeks, contributions of, 192  
 Green, Theodore M., 9  
 Growth:  
   *defined*, 109  
   hazards to, 110  
 Growth and development, nature of, 109  
 Guidance:  
   functions of, 181  
   many aspects of, 181  
   relation of physical education to, 181  
   when physical education becomes, 182  
 GutsMuths, Johann Friederich, 201  
 Gymnastics:  
   Swedish, 203  
   Swedish medical, 203

## H

Havighurst, Robert J., 148  
 Hazelton, Helen W., 77

Health:  
   *defined*, 105  
   physical and mental, 106  
 Hetherington, Clark W., 32  
 History, lessons from, 221  
 Hitler, physical education under, 202  
 Homeric age, 193  
 Hoover, Herbert, 25  
 Hughes, Byron O., 28  
 Huizinga, J., 206  
 Human development, principles applied to curriculum planning, 147

## I

Idealism:  
   meaning of, 5  
   physical education as, 5  
 Ideals, *defined*, 23  
 Individual activities, learning, 138  
 Instruction, *defined*, 126  
 Integration:  
   *defined*, 92  
   principle of, 87  
   of various aspects of development, 101  
 Intercultural education, physical education and, 77  
 Interest, nature of, 136

## J

Jahn, Friederich Ludwig, father of German gymnastics, 201  
 Jefferson, Thomas, 83

## K

Keeney, Clifford E., 179  
 Kephart, Newell C., 149  
 Kinaesthetic arts, sports as, 54  
 Kinaesthetic sense, *defined*, 116  
 Kinetic education, synonym of physical education, 55  
 Knowledges, ages 6-9, 150

## L

Leadership, democratic, 75  
 Learning:  
   concomitant or attendant, 131  
   conditions of, 128  
   criteria of, 127  
   *defined*, 126

## Learning (Cont.)

- the function of a number of variables, 128
- laws of, in a nutshell, 129
- nature and criteria of, 126
- organizing principles of, 136
- principles applied, 135
- principles of, 42
- relation of method to, 131
- Learning outcomes, types of, 130
- Learning process, physical education and, 126
- Learnings:
  - associated or connected, 131
  - direct or technical, 131
- Lee, John J., 118
- Lesson plan, *defined*, 146
- Life, *defined*, 86
- Ling, Per Henrik, 203
- Loafer's heart, 70

## M

- Marrou, H. L., 194
- Martin, Everett Dean, 9
- Maturation, *defined*, 109
- Measurement, nature of, 177
- Mental health:
  - contributions of play to, 107
  - defined*, 106
  - gymnasium and playground as laboratories for, 103
  - relation of personality needs to, 106
  - signs of poor, 103
- Mental hygiene and physical education, 41
- Mental practice, aids skill development, 140
- Method:
  - defined*, 136
  - importance of, 131
  - organization of learning as, 135
- Methods, not universal, 135
- Mitchell, Elmer D., 204
- Modern dance, as art, 56
- Moehlman, Arthur, 65
- Monroe, Paul, 201
- Mooney, James D., 169
- Morehouse, Laurence E., 69
- Mores, *defined*, 4
- Morris, Bertram, 57
- Morrison, H. C., 126
- Motivation, relation to learning, 136
- Motives, in curriculum planning, 154-155
- Motor habits, ages 6-9, 150

- Motor skills, concomitants of, 117
- Movement, biological effects of, 67
- Murphy, Gardner, 68
- Muscular activity, essential for development of nervous system, 115
- Muscular exercise, a nervous as well as a muscular process, 88

## N

- Nachetgall, Franz, 204
- Nash, Jay B., 31
- Naturalism:
  - meaning of, 9
  - physical education as, 9
- Nature and needs of human beings, summary, 120
- Nature and nurture, 27
- Needs:
  - basic personality, 102
  - biological, *defined*, 103
  - dynamic usage, *defined*, 103
  - implemental usage, 104
  - multiply in animal series, 101
  - nature of, 100
  - psychogenic, *defined*, 103
  - socially derived, 103
- Nyman, Emil, 181

## O

- Oberteuffer, Delbert, 31, 37
- Objective, educational, *defined*, 126
- Objectives, *defined*, 29
- Olympic creed, 78
- Olson, Willard C., 28
- Organization:
  - function of, 165
  - and human relationships, 166
- Organizational chart, importance of an, 166
- Origination, principle of, 58

## P

- Patrick, George T. W., 72
- Pericles, age of, 196
- Personality:
  - concepts of, 106
  - culture personalized, 73
  - defined*, 190
  - evaluation of, 179
  - a product, 73
- Pestalozzi, 12



- Philosophy:**  
 applied, 54  
*defined*, 1  
 function of, 48  
 need for a physical education, 2  
 physical education, an eclectic, 4  
 physical education as, 1  
 relations of science to, 47  
 traditional schools of, 3
- Physical education:**  
 a look ahead, 218  
 attitudes toward, 127  
 as basic education, 28  
 biological function of, 86  
 biologically founded, 86  
*defined*, 31  
 functional, 104  
 functions of, 30  
 guidance opportunities in, 181  
 historical origins, 190  
 integrative function of, 92  
 as kinetic education, 55  
 social function of, 89  
 social functions, 26  
 struggle for existence, 219
- Physical education and the learning process**, 131
- Physical education as art**, summary, 61
- Physical education as science**, summary, 49
- Physical education in a changing culture**, summary, 78
- Physical educator:**  
 as artist, 56  
 as "social physiologist," 93  
 suggestions to the, 228
- Physical fitness**, *defined*, 179
- Physiology:**  
 implications for physical education, 39  
 physical education and, 39
- Physique**, artistic appreciation of, 57
- Pioneering**, American trait, 68
- Planning:**  
 administrative, 223  
 democratic procedures in, 165  
 as a "preparation function," 165
- Play:**  
 and mental health, 41  
 motivation in, 112  
 nature's method of education, 11  
 place of, in growth and development, 109  
 psycho-physical importance of, 111  
 social integration through, 26  
 theories, 112  
 why important, 113

- Pragmatism:**  
 meaning of, 17  
 physical education as, 17
- Principles:**  
*defined*, 21, 33  
 examples, 21  
 sources of scientific principles, 33
- Principles and values**, meaning of, 21
- Program**, *defined*, 146
- Progression**, curriculum, ages 6-18, 150-154
- Psychology of learning and physical education**, 42

## R

- Raab, Wilhelm, 70
- Radler, Donald H., 149
- Read, Herbert, 55
- Records, of developmental growth, 183
- Reeder, Ward G., 162
- Reiss, A. J., Jr., 25
- Reudiger, William Carl, 53, 113
- Roberts, Morley, 93
- Rodgers, Elizabeth G., 140
- Roman:**  
 circus, 200  
 education of youth, 198  
 physical training, 199
- Romans, contributions of, 197-199
- Roucek, Joseph, 65
- Rousseau, Jean Jacques, 10, 200

## S

- Savage, Howard J., 207
- Scandinavians, contributions of, 203
- School:**  
 concept of, 3  
 public, the common denominator, 91  
 as a social system, 89
- School system**, functions of modern, 118
- Schorling, Raleigh, 135
- Science:**  
 function of, 48  
 interdisciplinary, 38  
 physical education as, 37  
 supplies intellectual tools, 57
- Shores, J. Harlan, 24
- Skill:**  
*defined*, 114, 133  
 hints for teaching, 139  
 importance of learning, 114
- Skills:**  
 types of, 139  
 why important, 116

Slavson, S. R., 111  
 Smith, B. Othanel, 24  
 Smith, Henry P., 178  
 Social development, genetic, in play, 45  
 Social function, of public school, 90  
 Social integration, need of, 92  
 Socialization:  
   by games and sports, 44  
   process of, 44  
 Social pathology, 93  
 Social philosophy:  
   physical education and, 24  
   types of, 24  
 Social psychology:  
   defined, 43  
   physical education and, 43  
 Social trends, effects on American life,  
   75  
 Spartan, culture, 194  
 Spencer, Herbert, 14  
 Sport, in education, 211  
 Standards, relation of values to, 3  
 Stanley, William O., 24  
 Stereotype:  
   of Americans, 67  
   of English, 67  
 Strang, Ruth, 129  
 Strength, a function of maturation, 110  
 Stresses, environmental, 72  
 Sundwall, John, 218

## T

Teachable moment, 149  
 Teacher:  
   as artist, 55  
   function of the, 43  
   physical education, expectations of a  
   principal, 181

Teaching, as art, 54  
 Team activities, learning of, 140  
 Team games, most favorable conditions  
   for teaching, 140-141  
 Teamwork, genesis of, 105  
 Technology, dependence on machines,  
   76  
 Tests:  
   aptitude, 178  
   use of, in evaluation, 178  
 Thomson, J. Arthur, 105  
 Toga *civilis*, status symbol of citizen-  
   ship, 198  
 Tunis, John R., 63, 212

## U

Unit, *defined*, 148  
 Unity, of human organism, 87

## V

Values:  
   importance of, 2  
   learned, 24  
   relation of attitudes to, 23  
 Van Dalen, Deobald B., 204  
 Vincent, E. Lee, 28, 116

## W

Ward, William Arthur, 190  
 Weiss, Paul, 115  
 Weston, Arthur, 208  
 Williams, Jesse Feiring, 31  
 Woody, Thomas, 57  
 Work capacity, physical fitness as, 179